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ELEMENTS OF METALLURGY;

A PRACTICAL TREATISE ON THE ART OF EXTRACTING METALS FROM THEIR ORES.

By J. ARTHUR PHILLIPS, M. Inst. C.E., F.G.S., F.C.S., &c.,

Ancien Elève de l'Ecole des Mines, Paris; Author of "Mining and Metallurgy of Gold and Silver," &c.

London: CHARLES GRIFFIN AND COMPANY, 10, Stationers' Hall-court.

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A substantial branch line, with easy gradients, of about 400 yards in length, constructed by the vendors, connects the colliery with the Llynvi and Ogmore section of the Great Western Railway, which is in direct communication with the important shipping ports of Cardiff, Swansea, Port Talbot, and Briton Ferry, and in close proximity to large iron and steel works.

Referring to the engineers' reports, and reckoning on an output of only 450 tons per day, the profit on coal and coke at the present prices would give over £24,000 on the nominal capital, or upwards of 30 per cent. per annum; but assuming that the profit is reduced to 2s. per ton, it would yield a sum equal to about 19 per cent. on the required capital. These calculations are irrespective of the revenue that will arise from the manufacture of bricks or the working of ironstone.

The vendors have agreed to sell these valuable properties for £25,000 in cash, and 2000 fully paid up shares of the company, and at the same time guarantee that, if the net profits should in any year or years during the first five years be insufficient to pay 10 per cent. on the capital called up, they will make good the deficiency, being repaid from any profits beyond 10 per cent. on such capital of other years or years within that period.

Prospectuses and forms of application may be obtained from the bankers, the solicitor, Mr. T. B. Edwards, Esq., 18 and 20, Queen Victoria Street, Mansion House, E.C., and at the offices of the company, where every information may be obtained.

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DOMINION OF CANADA.

CITY OF TORONTO SIX PER CENT. STERLING LOAN.

Issued in pursuance of Special Acts of Parliament, 35 Vict., cap. 79, and 37 Vict., cap. 75, and secured by a Special Rate to be leviable on the whole of the Assessable Property in the City, and specifically charged as a Mortgage on the Waterworks, and property appertaining thereto.

Issue of £123,300 Sterling Debentures to Bearer, of £100 each, Redeemable at par in gold, in London, on the 1st of April, 1904.

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Issue price, £102 per cent.

MESSRS. GRANT BROTHERS AND CO. (the bankers in Europe of the Corporation of the City of Toronto, in the Dominion of Canada) are PREPARED TO RECEIVE APPLICATIONS FOR £123,300 DEBENTURES OF THE CITY OF TORONTO, created in pursuance of the Special Act of Parliament of the Province of Ontario, in the Dominion of Canada, passed in the 35th year of Her present Majesty, entitled "An Act to Authorise the Corporation of the City of Toronto to Construct Waterworks in the City of Toronto," and of the Special Act of the same Province, passed in the 37th year of Her Majesty, to amend the said Act.

The amount authorised to be raised for the construction of the waterworks is \$11,000,000, or £226,000 sterling. Of this, the sum of £102,700 was raised under the first Act of Parliament, and the remaining sum of £123,300 is now to be issued under the additional Act, 37 Vic., cap. 75.

Both these loans, by the provision of the last-mentioned Act, rank *pari passu*, and are equally secured by a special rate to be leviable upon the whole of the assessable property of the City on completion of the waterworks, upon which they are specifically charged as a first mortgage, in accordance with Clause 31 of the Act 35 Vic., cap. 79, of which the following is a copy:—

"CLAUSE 31.—The said waterworks to be erected and constructed under this Act, and also the land to be acquired for the purposes thereof, and every matter and thing therewith connected, shall be, and they are hereby, specially charged, pledged, mortgaged, and hypothecated for the repayment of any sum or sums which may be borrowed by the said Corporation for the purposes of this Act, as well as for the due and punctual payment of the interest thereon; and all, each, and every of the holders of the debentures in the last previous section mentioned, shall have a preferential pledge, mortgage, hypothec or privilege, on the said lands, waterworks, and property appertaining thereto, for securing the payment of the said debentures and the interest thereon."

The debentures are to bearer, and are for £100 each.

In the official statement of accounts issued by the City, dated the 21st March, 1874, the revenue of the Corporation for the fiscal year ending 31st December, 1873, as certified by the City auditors, amounted to \$855,119.

The value of the property in the City of Toronto liable to be rated was, according to the assessment made this year, \$15,043,675, or about 9,000,000 sterling.

The price of subscription is 102½ per cent., payable as follows:—

£10 per cent.	on application.
20 "	on allotment.
25 "	on 1st August, 1874.
25 "	on 1st September, 1874.
22 "	on 1st October, 1874.

Interest at 6 per cent. per annum will accrue on each instalment from the date of payment thereof.

Payments in anticipation of the instalments may be made in one payment on allotment, in which case interest will accrue at 6 per cent. per annum on the full amount of the bond from the date of such payment. Default in payment of any instalment when due will render all previous payments liable to forfeiture.

The interest on the debentures is payable half-yearly, on the 1st of April and 1st October in each year.

The principal is payable on the 1st April, 1904, and the corporation are to raise annually after completion of the waterworks a sufficient sum to provide a sinking fund to enable the Corporation to redeem the debentures at par, at the above date, in pursuance of the Act of Parliament.

Both principal and interest are payable in sterling money in London, at the banking house of Messrs. Grant, Brothers, and Co., 24, Lombard-street, E.C., London.

Serial certificates to bearer will be issued against allotment letters and receipts for deposit, and will be exchanged for debentures when all the payments are completed.

Copies of the Act of Parliament of the Province of Ontario, in the Dominion of Canada, and of the last published accounts of the Corporation of the City of Toronto, for the year ending 31st December, 1873, may be inspected at the offices of Messrs. Renshaw and Robt., solicitors, 117, Cannon-street, E.C., London.

Applications must be made in the annexed form, accompanied by the deposit of £10 per cent. on the amount applied for. Should the amount allotted not require the whole sum so paid, the surplus will be applied towards the payment of the amount due on allotment.

In case no allotment is made the deposit will be returned forthwith without deduction.

To illustrate the increasing favour with which well secured Canadian Municipal Loans are received by English investors, it may be stated that the following loans issued by Messrs. Grant Brothers and Co., are now officially quoted on the London Stock Exchange, as follows:—

Name of Loan.	Date of issue.	Price of issue.	Present quotation.	Premium.
Six per Cent. City of Quebec Loan...	May, 1872	100	101 to 104	4 to 6
Six per Cent. City of Ottawa Loan...	June, 1873	102	104 ½ to 106	2 ½ to 4
Six per Cent. City of Quebec Loan...	June, 1873	102	104 ½ to 106	2 ½ to 4
Six per Cent. City of Ottawa Loan...	October, 1873	102	104 ½ to 106	2 ½ to 4
Six per Cent. City of Toronto Loan...	Feb., 1874	102	103 ½ to 105	1 ½ to 3

Forms of subscription may be had on application.

24, Lombard street, E.C., London, 19th June, 1874.

FINANCIAL STATEMENT FURNISHED BY THE MUNICIPALITY OF TORONTO.

LONDON, 18th JUNE, 1874.

This is to certify that the total amount of real and personal property in the City of Toronto, as assessed for rates for the year 1868, amounted to \$24,673,673.

That the amount for the year 1874 amounted to \$45,043,675.

That the value of the property or real estate owned by the Corporation of the City of Toronto, according to a valuation made by the assessors in the year 1871, was \$2,250,334.

That the debentures outstanding at this date, exclusive of \$1,100,000 Waterworks Debentures, amounts to \$2,906,931.

A. T. McCORD, Treasurer of the City of Toronto, Canada.

Dated at the City of London, England, this 16th day of June, 1874.

DOMINION OF CANADA.

CITY OF TORONTO SIX PER CENT. STERLING LOAN.

Issue of £123,300 Sterling Debentures of £100 each.

To Messrs. Grant Brothers and Co., 24, Lombard street, E.C., London.

I request that you will allot to me £ of the above Loan, on which I enclose £ being the required deposit of £10 per cent., and I agree to accept the said Debentures, or any less amount you may allot to me, and to make the remaining payments thereon, in accordance with the prospectus issued by you dated 19th June, 1874.

Name at full length

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Signature

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P. O. O. and cheques payable to Henry Russell Evans, 14, Commercial-street Newport, Monmouthshire.

Registration of New Companies.

The following joint-stock companies have been duly registered:—
DESAIGNES NATURAL MINERAL WATER COMPANY (Limited).—Capital 60,000, in 50 shares. To carry on the manufacture of mineral water in France. The subscribers (who take one share each) are—J. Thorne, 55, Grace-church-street; L. F. Semoline, 151, Barnsbury-road; N. G. Thorne, 55, Grace-church-street; G. Excell, Whitmore road, Hoxton; D. M. Smith, Catherine street, Strand; J. H. Oakley, 37, Dame-street, N.; and N. D. Hemming, 25, Stockwell Park-road.

SOCIETE D'EXPLORATION DES EAUX D'EGOUT DES PARIS (Limited).—Capital 160,000, in 160 shares. To obtain concessions for the sewage of Paris. The subscribers (who take one share each) are—W. Hope, 35, Nicholas-lane; E. F. Ripley, 8, Stanhope-terrace; W. D. Brown, 17, Holland street, W.C.; H. de Bruin, 58, Nicholas-lane; E. C. S. Hely, Eardley-crescent; W. Alfred Trot, 38, Nicholas-lane; and F. B. Maule, 5, St. Alban's place, St. James's.

LONDON SMALL PROPERTY TRUST (Limited).—Capital 200,000, in 50 shares. The subscribers to this company (who take one share each) are—C. Lincoln's Inn; C. H. Field, 63, Camden-square; C. F. Macdonald, Old-square, E.C.; Regent's Park; S. Peake, Shrewsbury; H. Thurgood, 123, Chancery-lane.

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YNISAWDRE COAL, COKE AND BRICK COMPANY (Limited).—Capital 70,000, in 100 shares. The subscribers to this company (who take one share each) are—Adam Stewart, Belgrave-road, S.W.; T. B. Edwards, 20, Queen Victoria street; F. L. Toms, 18, Queen Victoria street; E. G. Kilminster, 4, Brook Grove-lane, Camberwell; W. J. Savage, Harrington street; J. Spier, Newmarket; J. A. Lloyd, Newport.

JONES AND COMPANY (Limited).—Capital 100,000, in 100 shares. To take over the business of Messrs. Jones & Co., sewing machine makers, &c. The subscribers (who take one share each) are—J. Crook, Eddow Vale; A. H. James, Newport; John Stanfield, Aberberg; T. Rickard, jun., Aberberg; T. H. Bates, Newport; J. A. Lloyd, Newport.

THE FARMERS' COMPANY (Limited).—Capital 100,000, in 100 shares. To purchase the business of the Lincolnshire Farmers' Company (Limited).

FOWLERS' PONTYPRIDD STEAM COAL COMPANY (Limited).—Capital 150,000, in 100 shares. To acquire and work the Gellygafer and Llancorch Collieries, Glamorganshire. The subscribers (who take one share each) are—J. Morrison, Newcastle-on-Tyne; W. Cochrane, Newcastle; R. C. Vyner, Rotherhithe; W. T. Henley, Leadenhall street; J. T. Johnson, Chester; Alfred Darcy, Sheffield; and A. Allott, Sheffield.

SIMPSON'S PATENT CATTLE CAKE COMPANY (Limited).—Capital 50,000, in 50 shares. To carry on the manufacture of a patent cattle cake.

POWELL'S GELLYGAER COLLIERY COMPANY (Limited).—Capital 120,000, in 100 shares. To acquire and work the Gellygafer and Llancorch Collieries, Glamorganshire. The subscribers (who take one share each) are—J. Morrison, Newcastle-on-Tyne; W. Cochrane, Newcastle; R. C. Vyner, Rotherhithe; W. T. Henley, Leadenhall street; J. T. Johnson, Chester; Alfred Darcy, Sheffield; and A. Allott, Sheffield.

MINHO DISTRICT RAILWAY COMPANY (Limited).—Capital 200,000, in 100 shares. To work a railway in the province of Minho, Portugal. The subscribers (who take one share each) are—A. Galzini, 9, Mincing-lane; G. L. Loring, Culmore road, Peckham; W. P. Ivey, 8, Farnival's Inn; J. M. Bell, 1, 5, Dunham road; F. Barlow, Knight's Hill, S.E.; E. S. Mignon, Queen's Buildings, Victoria street; and T. W. L. e. 79, King William-street.

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SOUTHPORT ZOOLOGICAL GARDENS COMPANY (Limited).—Capital 25,000, in 50 shares.

MAUGHAM'S MINERAL WATER COMPANY (Limited).—Capital 20,000, in 100 shares.

JOHN ROUND AND SONS (Limited).—Capital 50,000, in 100 shares.

To take over the Tabor Works, Sheffield.

WARNER'S PATENT FOR METALS AND COKE.

In the Judicial Committee of the Privy Council, on Tuesday, an application was made on the part of Mr. Arthur Warner for a prolongation of his invention of improvements in the manufacture of iron, steel, copper, lead, tin, zinc and their alloys, and in the manufacture of coke. The patent was granted Sept. 29, 1859, for 14 years.

Mr. Aston, Q.C. (with whom was Mr. Carmichael) appeared for the petitioner; the Attorney-General and Mr. C. Bowen for the Crown.

The object of the invention was to remove certain impurities from iron, &c., by causing certain gases to act upon it in a molten condition. In 1872 works to 14,000 tons had been erected, for which at present no returns had been paid. The experiments made had shown that by the use of the invention, as applied to the process of puddling and improving iron, not only was a greatly improved quality obtained, but a very large saving was effected in the quantity

NORTH AMERICA (Gold).—Mr. Morgan (May 25) writes:—Considerable progress was made last week in washing the yard gravel. The dunes were cleaned up, yielding gold, value estimated at \$3000. The ground sluices have not yet been cleaned. I think 10 days more will enable us to entirely finish the yard work. The gravel is not so rich as was expected. The tailings of the sluices are so fine that the tailings are going to be much less than was expected. However, I think there will be sufficient to meet all expenses up to the last inst. I am unable to report as favourable as I could wish to do of the prospects of realising this season out of the new ground. The new ground is not so rich as was expected. The gravel is not so rich as was expected. I have before found. On first opening the new breasts some difficulty with the

THE GUNPOWDER PILE-DRIVER.

Reference has several times been made to the use of gunpowder for the purpose of pile driving, but difficulties have usually been met with preventing the practical application of the system. These, it appears, have now been entirely overcome by Mr. THOMAS SLAW, of Philadelphia, and the general features and advantages of his particular design, as well as the principal features of the construction of the several forms of machines hitherto used. The first form of machine tested consisted of a wooden frame, almost identical with the ordinary pile-driver, but having cast-iron guides, made in short lengths, with U-shaped sections, and secured to the inner opposing faces of the uprights. The ram was caught and held in position at the highest point of its ascent by means of a pawl engaging with the teeth of a rack secured to one of the uprights, the pawl being ingeniously constructed so as to release at will by pulling a cord from below. This part of the apparatus, however, was soon superseded by a continuous friction brake, which was applied from one side of the machine, with its arm brackets bolted to one upright, and the brake bar of angle-iron pressing the ram in a corresponding groove against the opposite upright. Whilst this machine fulfilled the desired conditions as to weight and portability, it did not possess the more essential property of strength and durability, and two or three of this kind were built. The action of the brake forced the uprights and the guides apart, throwing the plunger out of line with the gun, and distorting the frame at every blow.

The next form tried was constructed largely of cast-iron. This was found to be an improvement in many respects, especially as regards rigidity; but the machine was excessively heavy and ungainly, owing to the great amount of cast-iron used in its construction. Next the combined plan of wood and iron framing was tried, and again, and then the V form of guides was abandoned entirely, and a half dove-tail adopted. The experience gained by repeated failures seemed to point to the necessity of returning to a metal guide frame entirely, and the next form produced was made of Mclaffie steel. The uprights were of T section, gradually diminishing in size from base to top, cast separately in about 5-ft. sections, and the ends bolted together with fish plates. The guides were made of half dove-tail section, projecting from flange face centrally, and of half dove-tail section, projecting from the ends of the section, to secure the necessary alignment. A double brake apparatus was attached, one on each side, and applied from the rear. The break arms and brackets were of steel, and bolted to web and rear flange of uprights, and the brake bars were of the usual angle iron. The uprights and guides were secured the proper distance apart by stout iron rods fitted with jam nuts, and passing through the side bars of framing, which were of wood, and bolted to flange of uprights and to the guides, some dependence also being placed upon the dove-tail joints. This plan succeeded well, and several fine machines, some as large as 60 ft. high, and fitted with a steel gun of 8½ in. bore, and with a 3000 lb. ram, have been put aloft and in service in different sections of the country, with good results as to efficiency and durability. The cost of the steel itself, and the somewhat difficult machine work required to fit it for use, the writer is informed, renders it still too expensive, and it is also too heavy and cumbersome.

The ram, which was of cast-iron, is provided with a plunger, upon the lower end of which is screwed a steel ring or band, and turned to neatly fit the bore of the gun below—the whole weighing 2170 lbs. The gun is of steel manufactured by the Mclaffie process, and weighing 1300 lbs. It has a bore 7½ in. diameter, and 24 in. deep, pointing upward, with its mouth slightly bell-shaped to receive the ram plunger at each stroke. Its walls are 3½ in. thick at base, and the lower end is recessed to receive the head of piles. The uprights of the frame each consist of a single piece of light 9 in. channel bar of rolled iron, 42 ft. long, and weighing 50 lbs. per yard, with their flanges turned outwards, and the front flanges forming the guides, or ways, up and down which both ram and gun move. The uprights are firmly secured together, the proper distance apart, by means of angle iron cross bars, riveted to the rear flanges, and spaced 6 ft. apart. The side bars of the framing are of angle iron also, one end of each of which is bolted through its vertical flange to the inside of the web of the uprights, and to the upper flange of the cross bar through its horizontal flange, thus forming a sort of gusset stay, or brace, to stiffen the guides transversely, and the other end is bolted to the ladder, which is made of wood. The cross-head at the top of the frame, made also of light nine-inch channel iron, and secured to the uprights by angle iron brackets riveted on, carries the runner shieves and cushioning piston bolted to its upper and under sides respectively. This fixed piston fits into a corresponding bore of the ram to form an air cushion, and prevent the escape of the ram from the guides when the height of its rebound is limited, as during the first blow with long piles. The friction brake attachment, by which the ram is held in position at any point, is located (one on each side of the machine) between the flanges of the uprights, on the outer side, and consists of a brake-bar, made of very light T-iron, and brake-arms, made of the Mclaffie steel, spaced 2 ft. apart, and pivoted to the studs in the web of the uprights, and is operated by a lever through a suitable link. By this arrangement of the brake it is well protected from injury while at work, the connections are short and direct, and the strains of its action are self-contained in a single part of the machine, and not transmitted from one part through others to another part, with a powerful tendency to separate them at every stroke, as heretofore.

The friction surfaces of the bar and guide are likewise effectually protected from any fouling action from the gun, which has been a source of much trouble in other machines, especially in damp weather, when the brake would not hold well. The adoption of the light T-iron brake-bar, instead of the angle iron heretofore used, affords the requisite strength with less weight, admits of a simpler and shorter pin connection with the ends of the brake arms, and thereby permits the use of as small as 9-in. channel iron for uprights; and at the same time it allows sufficient room between the flanges for the use of a 6-in. brake-arm, while the small flat friction surface has proved to be as effective as the more extended V of the angle iron. The axes of the gun and ram project 2 in. from the face of the guides, in order to give sufficient clearance to the cross bars when driving crooked piles, but this overhang has not proved detrimental to the action or efficiency of the machine in any respect. The plates of the ram, against which the brake-bar bears, are made a little thicker than those of the gun, so that the brake can be applied to the ram only, and they are also notched into the arm a little to resist the shearing strains due to the instantaneous change of motion while in operation, it having been found difficult heretofore to securely bolt anything of any magnitude to the ram. The sills of the framing are of wood, and rest upon the long rollers ordinarily used on land machines to facilitate the movement. The diagonal angle and bar iron braces are merely to give additional stiffness to the framing.

The principle of this action, and manner of operation, do not differ from the original form of construction. The only advantage or improvement claimed is in the overcoming of many of the mechanical difficulties which have been in the way of producing a much lighter and cheaper machine, consistent with the requisite strength, efficiency, and durability. Ordinary rolled iron has, therefore, been largely used in its construction, it possessing all the necessary qualities afforded by Mclaffie steel for this purpose at less than half its cost per pound, and with somewhat less weight. Moreover, the uprights can be made in a continuous piece, without having any joints or bolts incident to the use of cast-iron or steel in sections, and, unlike them also, the guides require no machine fitting or tool dressing, whilst its superiority over cast-iron in every essential respect is sufficiently obvious without further comment. By this plan a saving of about 25 per cent. in cost of construction is effected, as well as a reduction in weight, over the best machines hitherto made, while its operation has been most satisfactorily tested.

The machine appears to effect considerable economy, but no reliable data as to actual cost of operation has been obtained. The work has been done by contract, and the limited supply of piles to the machines did not permit their constant use without interruption scarcely for a day at a time, the force employed to operate them

having been too small to also keep them supplied with piles at the same time. Under favourable circumstances, however, as many as 81 piles have been driven in 9½ hours, and 12 in a single hour.

GOLD MINING IN NEW ZEALAND.

One of the greatest feats of engineering skill of which the colonies can boast has been accomplished in the Thames gold mining district in the province of Auckland, New Zealand. This district is situated on the eastern shore of the Firth of the Thames, a large river, navigable to light-draught vessels for some 50 miles from its mouth. It was in the Firth of Thames, off the Turam Valley, now part of the gold field, that the great navigator, Capt. Cook, cast anchor in his good ship *Enterprise* 104 years ago; and little dreamed he or any of his stout crew how near they lay to one of those Dorados ever kept in mind and eagerly sought after by the earlier navigators of modern times. Hanraki, the native name of the district, was then numerously populated by the Maoris, and up to as late as seven years ago was but little frequented by white men, and was regarded, and with reason, as one of the strongholds of the natives who were hostile to British rule. However, a startling revolution in the sympathies of the Hanraki natives and their attitude towards the whites was created by the discovery of gold in the district in 1857, a year that will ever be regarded as memorable in the annals of the province of Auckland, then suffering from a fearful reaction consequent upon the termination of the last great native war, and the withdrawal of troops from the province. The gold field proved a very haven of refuge to hundreds upon hundreds of unemployed men of all classes who had been reduced to the verge of absolute indigence; and as the moneyed class of the City of Auckland backed the field to win, its development proceeded with rapidity, and was attended by success that the most sanguine scarcely hoped for. Line after line of auriferous lodes was opened, chief amongst which was the now celebrated Caledonian Golden Crown lode, but which then was only known as the lode that had been opened in a claim termed the Manakaw, situated on a ridge of a high spur. From the Manakaw the lode dipped into the Golden Crown, increasing in richness as it went, and subsequently was traced, still increasing in richness, into the Caledonian Mine. The strike of this lode is about north-east and south-west, and its dips to the north-west at about an angle of 45°. The water line of the lode was first reached in the Golden Crown Mine; and as it very soon became evident that a heavy body of water would have to be dealt with, preparations to meet and overcome that great obstacle to mining progress were made by the Caledonian Company erecting a 45-horse power engine, and providing a 12-in. lift that was afterwards supplemented by another of 10-in.; a winding-engine was also erected. Then the Tooke Company, whose mine was situated dead on the line of the lode, also erected a powerful winding and pumping plant; and it was hoped that by working together the two companies would be able to keep the water down. It, however, soon became evident that other and more potent means would have to be resorted to, and this led to a coalition on the part of four companies—the Golden Crown, Caledonian, Tooke, and the Imperial Crown—and to this coalition was given the name of the "United Pumping Association," the object of which was to purchase and erect a large bull-engine, not quite complete, and pumping gear then for sale in the neighbouring colony of Victoria.

The plan of operation sketched out was simple enough, being to erect the plant on a site above where the lode should lie, at a much greater depth than had been gained in either the Caledonian or Tooke Mines. The Imperial Crown Mine, next to the Tooke, was selected as the site, the estimated depth, according to the survey, at which the lode would be found right under where a main shaft had been opened by that company being 340 ft., which was at least 100 ft. deeper than where the lode lay in any part of the Caledonian Mine, and quite 200 ft. deeper than the bottom levels of the Tooke and Caledonian. Towards the middle of the year 1871 the purchase of the plant was completed, and before the year closed it had safely reached its destination. A competent engineer, Mr. William Errington, was engaged to superintend its erection, and in August of the above year he arrived at the Thames from Ballarat, where he had been located for many years. Sinking the Imperial Crown shaft by the Imperial Crown Company had been conducted to a depth of 190 ft. or thereabouts, the shaft being situated close to the coast range, which there nearly approaches the sea beach. The mouth of the shaft was certainly not much more than 20 ft. above the level of high-water mark, and hence it was feared that as sinking proceeded water from the sea might prove troublesome. Happily, however, good close country prevailed and kept the water back. Sinking the shaft so far had been accomplished by the aid of one 40-horse power engine for pumping, and a 12-horse power engine for winding, whilst a donkey-engine was used to drive the air-fan-ners. Two 12-in. lifts dealt with the water, but had much ado to keep it under, and were finally beaten by it. As soon as Mr. Errington took charge active preparations for the erection of the new plant were commenced. Firstly, a foundation capable of sustaining the enormous weight of the engine and pump had to be prepared, and this involved excavating around the shaft to a depth of 20 ft. to the solid rock. Material for a foundation was happily procurable from some splendid stone dykes, composed of a sort of bastard granite, that had been discovered in a locality named Hope Creek, distant about two miles from the association's works. The pressing necessity for good foundation stone led to the discovery of the dykes, and thus one noble industry gave birth to another, for the dykes are now in the hands of a stone quarrying and cutting company, and produce stone of an unexceptionable quality, that is largely in demand. In due time the foundation was built up, some of the blocks used being 2½ tons in weight, whilst the total measurement of the stone used was 26,000 cubic feet. The foundation is capped by two cylinder piers, one on each side, upon which has been built a frame of huge girders, each 30 in. square, of solid timber. And all their strength, and their solidity, is not a whit too much to sustain the superincumbent weight of the massive machinery, which would be regarded as massive even in our country, where the steam-engines assume such enormous dimensions. Of this machinery the engine may be first described as including a cylinder of 82 in. diameter, 10 ft. stroke, and weighing 13 tons, a piston-rod of 8 in. diameter, and a metallic piston. The engine is inverted, and direct action, the pump-rods being attached to the piston-rod. The admission and emission of steam to and from the cylinder are regulated by three valves, termed the steam-valve, the equilibrium valve, and the eduction valve; and these are actuated by tappet gear from plug-rods connected with the balance-beam. The engine is also fitted with steam eduction cataracts. The air-pump is 39-in. diameter and 5-ft. stroke, and is also worked from the balance-beam. Three tubular boilers, each 32 ft. long by 6½-ft. diameter, the tubes being 3½-ft. diameter, and fitted with Galloway tubes, supply steam to the engine through a steam-pipe of 18-in. diameter. The pumping-gear consists of ordinary draw-lifts and plungers, excessive size being their principal characteristic; the diameter of the column is 25 in. Each pump is constructed of from 1½ in. to 1½ in. thickness of iron, and faced on the flanges. The plunger is 24-in. diameter and 14 ft. long. The main pump spears are of blue gum timber, squared to 20 in., and in 35-feet lengths, strapped with four set plates of 9 x 1 in. iron, and 14 ft. long. The balance-bob of the pump-engine consists of the balance-beam above referred to, and which is in one piece of timber, 45 ft. long, and 30 in. by 24 in. in size, and a box of 15 tons capacity. The balance-bob oscillates upon a gudgeon of 8 in. malleable iron. Several months of costly patient labour were expended in putting together this huge fabric of mechanism, and the work at length came to an end, when the finishing touches were given to a handsome house that covers the engine and shaft. Excepting the cylinder, which was made by Leigh, of Patricroft, near Manchester, the engine and pumping-gear are of colonial manufacture. The pumps were made at the Union Foundry, Ballarat, and the air-pump and condenser were made by Langlands and Company, of Melbourne, Victoria. The other parts of the gear were turned out in truly creditable style by ironfounders of Auckland and the Thames.

As soon as the engine was in working order sinking the shaft was resumed, and continued until a depth of 400 ft. had been gained.

In the meantime the object in view—tapping the lode and draining the Caledonian and Tooke Mines—was accomplished. A short description of the shaft may, perhaps, not be uninteresting to our readers. Sunk 400 ft. deep, it is divided into two sections, of which the first extends from the surface to the 220 ft. level, where the first plunger is fixed, and the second from the 220 ft. level to the 400 ft. level, where preparations to fix a second plunger are now in progress. The size of the shaft from the surface to 180 ft. down is—length, 11½ ft.; breadth, 6½ ft., these measurements being in the clear; and hence the excavation made was much larger to provide room for the frames and piles of which the shaft is built. The frames are placed 3 ft. 6 in. apart, and are composed of timber, varying between 9 in. and 18 in. square, according to the character of the stratum of country to be supported. At every 30 ft. the shaft is strengthened by sets of massive bearers of timber, hewn to 30 in. by 24 in., and let deeply into the solid country. To these bearers the frames are hung by 1½ in. iron bolts at the corners, nine frames to each bearer.

From the 180 ft. the size of the shaft gradually increases to make room for the plunger work, until it is 20 ft. long by 10 ft. wide at 220 ft., where the first plunger is fixed in its chamber. This chamber is about 20 ft. high, and is built of huge balks of timber, and spanned by five girders, each 4 ft. wide by 2 ft. thick, three above and two below, and bolted together into solid pieces. The upper girders support the pump column, whilst those near the floor of the chamber constitute a foundation for the plunger work, which weighs 26 tons, exclusive of the cistern, and that is 8 ft. square, is built of timber braced with iron, and is bedded on the solid country of the chamber floor. The second section of the shaft is a *fascimile* of the first, excepting that instead of a plunger a draw-lift works in it, that kind of pump having of course to be used whilst sinking was progressing. In the course of four months this draw-lift will have been discarded for the second plunger. The latter, we may observe, is to be cast at one of the local foundries, that of Messrs. Price Brothers. Its dimensions will be precisely similar to those of the first plunger. The shaft is traversed by a brattice, that divides it into two compartments of unequal size, of which the smaller is the winding compartment only—one side of it, however, being devoted to that purpose, the other is pretty well occupied by a line of air boxes, reaching from the bottom of the shaft to a powerful draught-furnace built into the smoke stack of the winding-engine. The draught-furnace system of ventilating mines has been introduced with marked success in the Thames district, the deeper mines of which are deluged with carbonic acid gas. Besides the big engine the association employs three others—one of 40-horse power for winding, another of 12-horse power to pump sea water for condensing purposes—the shaft water being in great request to supply quartz-crushing mills—and a 4-horse power engine for miscellaneous purposes. These engines take steam from two Cornish boilers, and with those boilers are substantially housed under one roof. The area of the site of the association's works falls but little short of three acres, and yet there is no room to spare, every yard of ground outside the machinery being occupied by coals, wood, and other material, also by an immense reservoir for sea water, and a quartz-crushing machine with 23 heads of stamps. Work proceeds night and day, and is governed by the utmost order and precision of details, and that the management is admirable is evidenced by the fact of no serious accident having occurred to any of the employees since erecting the engine was commenced. We will conclude this article with a few facts illustrative of the ponderous character of the pumping-gear and the power of the engine. The weight of the columns is 160 tons and of the main spears 25 tons, whilst the weight of the column of water that is constantly moving upwards is 35 tons. The duty performed by the engine is equivalent to lifting 38,000,000 lbs. 1 ft. high with a consumption of 1 cwt. of coal; and considering that the engine is not steam-jacketed, and that the coal used is very much inferior to the better sorts of English and Welsh coal, this performance is not to be found fault with. How perfectly every part of the machinery has been fitted is evidenced by the silence of its working, for excepting the roar of the water as it pours into the cisterns, and a sort of sighing as the plunger takes water, not a sound is to be heard in the shaft; whilst the clacking of the valves, and whistling inspiration of the steam-valve as it takes steam, alone disturb the stillness of the engine-room.

As near as may be arrived at approximately, 50,000% have been expended upon the United Pumping Association's undertaking, and to the question—Has this cost been merely incurred for the purpose of draining a lode? a negative reply may be given, the shaft having been sunk for the double purpose of unwatering the lode and prospecting a line of country apart from that one in which the shot of gold had been traced in the Golden Crown and Caledonian Mines. There is every probability of gold being found in it, for the country that has been penetrated is of the likeliest character, whilst the few leaders that have been met with are also very promising. The incentive to prospect—and thoroughly prospect too—the deep ground of the locality we have reported upon is supplied by the enormous yields of the Caledonian Mine, which first and last has produced over three-quarters of a million sterling of gold: 25,000 ozs. of the precious metal were taken out in the course of one short fortnight, whilst the yields for corresponding periods, before and after that particular one, fluctuated between 2000 ozs. and 18,000 ozs. After being traced to a depth of between 400 ft. and 500 ft., measured on the underlie of the lode from the outcrop, the gold suddenly broke off and the present operations of the Caledonian Company are being conducted with a view to the recovery of the lost shot. The search has also been taken up from the association's shaft, where a drive is going in at the 385 ft. level towards the line of the shot, and that the latter will sooner or later be found again is considered as almost certain.—*Engineer*.

ECHOES FROM THE MINING MARKET.

Quietude has been the principal feature of the Mining Market during the past week. The fluctuations that have taken place in tin stocks have been of little importance, and prices may be said to have remained stationary. Shares, however, are scarce, and there is no doubt that holders are waiting for further advances in the standards. Respecting imports of the metal, it is an encouraging feature to note that they continue on a limited scale, and as the home production has sensibly decreased the chances of an early advance are certainly promising. If the movements of the tin market depended only upon the legitimate influences of supply and demand this advance could be predicted with tolerable confidence; but it is as well not to lose sight of the fact that there has been a great amount of speculation in the metal in London, and "bears" are supposed not to have quite covered themselves yet. Some very encouraging rumours are afloat as to the future of the copper trade, and we are likely to hear of something good shortly. The present quotations are firm, and consequently copper mine shares, although not largely dealt in, generally maintain their prices. One of the first to be affected by any advance in copper would be West Tolgus. This mine, which has been making some rapid strides lately, is reported to be looking uncommonly well, and a dividend of about 30s. per share is talked of at the next meeting. This, however, may be a too sanguine view of affairs. The mine throughout has improved, but the lode in the 55 ft. level west is spoken of as the most important point. Shares are decidedly scarce at 60 to 65.

Old Bottle Hill.—In about 5 ft. more driving the lode is expected to be cut here. This point is being looked forward to with great interest, as it is expected to lead to the opening up of a good course of copper. Tin dressing has already commenced, but water is reported to be rather scarce. This will be the case with all mines dependent on water supplies, as the effects of the drought are now beginning to be felt.

A further fall has occurred in West Chiverton shares, which at the present moment are very much in favour of buyers. The mine is said to be looking very poor, and a call is expected. This has, probably, frightened holders. The present price is, however, very low, and can hardly represent the value of machinery. From Prince of Wales we hear the copper lode has been struck in the 77 east. The same lode in the 65 is valued at 100 per fathom. It is satisfactory to find the ore holding down, as it greatly enhances the value of the mine. A small sampling of ore has just taken place, realising upwards of 2800.

Foreign mine shares after rallying a little from the extreme depression of last week have again become easier, and shares are being offered. The result of the Emma adjourned meeting has apparently been only to make confusion worse confounded. According to the official advice the mine could not very well look worse, and already the question of liquidation has been freely discussed. So many elements of discord have lately been introduced that one may well high despair of any satisfactory solution of the difficulties being arrived at. Indeed, it is difficult to see how a wind-up sooner or later can be averted. Richmond shares have been extremely flat, although the advice from the mines are not by any means discouraging. Two furnaces have made a seven days' run of 339,000, and a third has since been started. Fuel, too, is reported to be plentiful, but somehow or otherwise the shares droop. Probably the shareholders have not yet recovered from the effects of the late *crisis* respecting the original price given for their property. The final meeting of the Eclipse Gold Company will be held on the 25th inst. About 34000 is ready for distribution amongst the shareholders. JAMES H. CROFTS.

PEAT FUELS, AND THEIR ECONOMIC VALUE.

A highly interesting paper, giving an account of what has been done towards the utilisation of peat, has recently been read before the Manchester Geological Society by the honorary secretary, Mr. JOHN PLANT, F.G.S., Curator of the Royal Museum, Peel Park, the principal object being to give an account of the Peat Fuels in the Exhibition of Scientific Industry at Peel Park, 1874. Mr. Plant remarks that the surface covered by peat beds in England is considerable and widely scattered, except in the Midland Counties; it is much greater in Scotland, but most extensively seen in Ireland. The peat bogs of Ireland are estimated at 2,831,000 acres, those of Great Britain at 3,500,000 acres, giving the total extent of peat in the British Isles equal to, in round numbers, 6,000,000 acres; and if, says Mr. Plant, we accept an average thickness of 12 ft. deep over this enormous area, and each acre as capable of supplying 12,000 tons of peat fuel, we may justly regard this as a powerful auxiliary to keep up the steam-producing power of Great Britain, and to some extent help to stave off the day of the exhaustion of its coal fields.

Although bogs and moors are mainly alike in their general characters, yet there are differences between them, and much difference between the peat cut at different depths of the same bog. Near the surface, and frequently for a depth of about 5 ft., the ligneous fibre is perfectly discernible, and from thence downward to a variable depth the vegetable fibres may be traced through various stages of decay until at the bottom all traces of vegetable fibre are lost in the complete decomposition which has been brought about by time and chemical change. The denser portion which forms the lower stratum of a bog is the most valuable; it is easy to work, and when dried it abounds in inflammable materials, it makes the best fuel, and burns like a bituminous coal. The peat of the high moors and mountains is generally more impure than the peat of the plains, owing to the amount of disintegrated rock which from atmospheric influences gets disseminated through the peat; then, it is harder and tougher in fibre, owing to its slow and stunted growth, all of which lessen its value as a fuel. The chemical nature of the change by which peat has been produced from mosses is probably very similar to that by which bituminous minerals have been formed from analogous materials. It consists chiefly in elimination of oxygen and hydrogen in the proportion to form water; also of oxygen and carbon to form carbonic acid, and of hydrogen and carbon in the proportion to form marsh gas and other hydro-carbons, the main feature of this change being the increase in the amount of carbon in the residual substance—the varieties in peat depend upon the extent to which this change has advanced, peat when slightly altered approximating to the texture of ligneous tissue or wood—and with greater alteration approximating to that of lignite, coal, or other bituminous minerals both in physical characters and in composition.

In Holland the making of peat fuel is a great and lucrative industry; above 40,000,000 tons of hard peat fuel are made annually, and 140,000% is paid to the Dutch Government as excise duty every year. In that country peat is divided into four classes—long turf, a dry, light, and very fibrous material obtained from the high fens, which is cut into long slabs and air dried; this sells at from 13s. to 19s. the English ton; short turf, obtained by dredging the water-covered turbaries; it is well kneaded by treading it under the wooden sabots of the workmen, cut into short bricks, air dried, and sold to the hotels and upper classes for 14s. to 19s. per ton; derrie turf, obtained from the coast lying under the sand dunes, about the same value as the preceding; and, lastly, rather turf, a machine-manufactured peat fuel, produced by a process similar to Clayton's. The cost of making rather peat fuel is 6s. 6d. per ton; it pays a heavy excise duty, and sells for about 10s. per ton at the works, and 19s. per ton at Delft, 100 miles from the works. The most serious obstacle to the useful application of peat fuel upon an extensive scale arises from the large amount of water held in the peat in its natural state, and in the practical difficulties of effectually separating this water by any quick heat-drying processes. There exist already above 100 patents for the making and converting raw peat into fuel for steam and domestic purposes, and of these not more than half a dozen ever attempted to work upon a scale so large as to prove their practicability. Mr. Plant then gives short abstracts of the several processes which have been from time to time before the public, and the general conclusion at which he has arrived is that in places in Great Britain where coal is scarce and dear, and peat abundant, peat fuels could very well be sold at a good profit; but where, as in Lancashire, coals are plentiful, the chances of peat fuel in competition are very small. The heating power of peat fuel is just, weight for weight, one-half that of coal, therefore the former cannot bear the cost of carriage.

IRON TRADE IN AMERICA.—At a meeting of the American Iron and Steel Association, recently held in Philadelphia, it was stated that of the 666 furnaces in the United States only 400 are in operation, and many of these, it is expected, will shortly have to stop also; 175,000 workmen have been already thrown out of employment in this trade alone, and the number will probably be increased. The meeting then proceeded to lay down the following doctrines:—"That it is the duty of the Government to protect its citizens from widespread calamities which are the result of natural causes;" that Congress ought to provide employment for the ironmen by completing the railroads already authorised between the Atlantic and Pacific, by increasing the facilities for cheap transportation by water, and thus end our Indian troubles; that it ought also to inflate the currency by passing Maynard Bill; and that the working men should agitate in favour of this Bill; that Congress ought also to take measures to prevent the influx of foreign iron into the country; and that ironmasters ought to reduce production so as to raise prices.

THE LANCASHIRE AND CHESHIRE CERTIFICATED COLLIERY MANAGERS' ASSOCIATION.—An adjourned meeting of members was held at Manchester, on Monday, to consider the rules which had been drawn up for adoption. Mr. Hopton, of St. Helens, occupied the chair. A set of 22 rules were agreed to, and the first of them set forth that "owing to the increased responsibilities that are placed upon colliery managers since the passing of the Coal Mines Regulation Act, 1872, it is considered desirable that an association be formed to protect their interests, and defend them against all actions, judgments, penalties, &c., that may be imposed upon them, also to assist an advance each other in their profession." Other resolutions relative to the organisation of the society having been agreed to, amongst which it was resolved that should a member give any information detrimental to the interests or objects of the association he should, on proof thereof, forfeit his membership. The following were embodied in the code:—"That members may be better able to procure situations when in quest of them, information must be sent to the secretary when any situation is vacant, by those in the locality, as soon as possible after they receive the information, stating all particulars of the colliery or place; and the secretary shall keep a register of all places that may come to his knowledge, and if there be members in want of situations he shall at once inform them, with every information respecting the same." "If any member be embarrassed in the discharge of his duties he shall have the power to ask and receive the advice and counsel of other members of the association." "Should any member be brought before a court of justice for any act relating to his profession he may state his case to the council, who shall investigate the same, and if they ascertain that he has discharged his duty to the best of his ability, they shall have power to employ counsel to defend any action in connection with the above act which may be brought against any member." Other rules having been agreed to with regard to raising necessary funds, &c., the meeting was adjourned.

NEW GUIDE TO THE IRON TRADE.—Amongst the many duties of the mill-managers there is probably none which is of greater importance, when the object is to secure the largest amount of profit for those by whom he is engaged, than that of seeing that all waste of raw material is carefully avoided; and it was, no doubt, the consideration of this fact that induced Mr. JAMES ROSE, of Batman's Hill Ironworks, to undertake the somewhat laborious task of preparing his "New Guide to the Iron Trade" (published at the *Mining Journal's* office, 26, Fleet-street, London, price 8s. 6d.), which comprises a series of new and comprehensive tables, practically arranged to show at one view the weight of iron required to produce boiler plates, sheet iron, and flat, square, and round bars, as well as hoop or strip iron of any dimensions. At the present time, so large a proportion of the iron trade is in the hands of joint-stock companies, the work will be of especial value, since by intelligent use the London official of a company will be enabled readily to estimate the cost to the company of the iron, whether it be in the shape of boiler-plates, rails, bars, or otherwise, for which any particular contract can be taken. The first edition, which has been some time out of print, having sufficed to establish the reputation of the work for utility and accuracy, it need only be stated that the second edition now issued has been produced with the same care that secured so favourable a reception for its predecessor.

Mining Correspondence.

BRITISH MINES.

ABERDAUNANT.—8. Toy, June 17: The No. 2 adit to drive east, by four men, for the month, at 7s. 10s. per fathom. This end still continues hard, and is discharging much water. No. 4 adit, to drive east, by six men, at 8s. 10s. per fathom. In the east part of the set we are sinking east-pits on the back of the large quartz lode, and in going east we find we have to sink our pits a greater depth to meet the back of the lode.

ASHFORD.—M. H. Whitford, John Craze, June 17: In Mawr shaft good progress is being made, and should the ground continue as it is we hope to be deep enough for a 50 ft. level in the course of a week or two. In Browne's shaft good progress is also being made in the sinking, and we hope to be deep enough for a 40 ft. level by the end of this month. In the 40, west of Mawr shaft, since our last piece of lode has been taken down, which is from 2 to 3 ft. wide, composed of quartz and blende, intermixed with lead, but not sufficient to value. The three stops in the back of the level will yield respectively 1½, and 2 tons of lead per fathom. The winze sinking below the 30, on the south part of the lode, is led to the 40, which has greatly improved the ventilation in this part of the mine, and opens out ground available for the lode, to drive east, by four men, at 8s. 5s. per fathom; we expect will be down deep enough for a 40 ft. level by the end of this month. The stop in the back of the 30, on the south-east branch, will yield from 15 to 18 cwt. of lead per fathom. The stop in the back of the 8 west will yield 1½ ton of lead per fathom. We sold on the 16th inst. 50 tons of lead ore to Messrs. Sheldon, Bush, and Company, at 12s. 3s. per ton, f.o.b. here.

BAMFELDE.—S. Mitchell, June 15: Our setting-day was on the 7th inst., when the following bar air was set for a month on:—A rise in the back of the 102, by four men, at 3s. 15s. per fathom; lode worth 18s. per fathom. The several stops in the back of the same level, at 3s. 12s. per fathom; the lode in each stop is worth 12s. per fathom. The 90, to drive west of No. 4 shaft, by four men, at 8s. 5s. per fathom; lode worth 14s. per fathom. The 70, to drive east of the cross-course, by four men, at 8s. 10s. per fathom; lode worth 10s. per fathom. The 40, to drive east of engine shaft, by four men, at 2s. 15s. per fathom; the lode here is 3 feet wide, of splendid appearance, and is producing rich copper ore, with indications of an early improvement. At Stowford Iron Mines, the level to drive east of the new shaft, by six men, at 4s. per fathom; the lode is yielding 45 tons of first-class iron ore per fathom. The same level, driving west of shaft, by four men, at 2s. per fathom. The level, to drive east of Slader's shaft, by four men, at 4s. 10s. per fathom; the lode producing 25 tons of iron ore per fathom. The same level, of shaft, by four men, at 2s. per fathom; the lode producing 30 tons of rich iron ore per fathom. The level, to drive east, by four men, at 4s. 10s. per fathom; the lode yielding 25 tons of rich iron ore per fathom. The adit shaft for ventilation, to sink below surface, by four men, at 4s. per fathom; the lode is very large. At Crohorne, three stops are working, by ten men, each several stop will average about 15 tons per fathom; all the other lodes are producing about their usual quantities of ore. We are rapidly getting the iron ore to the railway station for transit.

BEDFORD CONSOLS.—G. Rowe, J. Mitchell, June 17: The lode in the 65 ft. level, east of the pump-shaft, continues to lead exceedingly kindly, containing spar, munda, capel, and good stones of rich quality copper ore. We have to day sent you a containing sample of munda and glass. As I stated in a previous report, the mine, which you will find alluded to with statements where broken from.

BEDFORD UNDEE.—W. Phillips, June 18: The mine throughout is looking much the same as for some time back. We shall take down the lode in the different levels, and report size and value next week.

BOG.—W. T. Harris, J. Barkell, June 17: The lode in the 175 west is improving for lead, and very promising for a branch of ore; with this exception, there is no material change in any of our bargains. The same may be applied to our pitches. To-day we have sampled 60 tons of lead ore, for sale on the 24th inst.

BRONFLOYD.—John Davis, June 13: The middle lode in Lloyd's cross-cut continues strong and promising as far as we have seen into it (about 4 ft.), and produces a fine sample of munda and glass. As I stated in a previous report, I expect to find the richest portion near the footwall, and we find it improving in value as we cut in. As regards surface operations, we are going on the same as when I wrote you last Wednesday. No rain to speak of as yet.

J. Davis, June 17: The middle lode in Lloyd's cross-cut, south of the 52, continues strong and promising, but very tight to explore. There is no sign of the footwall as yet; if it is as wide as the 52 as it is at the 40, it will take 7 or 8 feet more driving to intersect the south wall of it. There is no change in the stops over the 84. The tributaries are getting fair wages. No change of weather yet, and hence our surface supply of water is very small. I am preparing to remove the 20, east of Tonkins' shaft, by driving by four men; here we have a very kindly end, which is pumping and hauling No. 3 shaft, so that less water may work it. I intend, if possible, to send off 8 tons of lead ore next Saturday.

BRYNAMBOR.—George Spargo, June 17: The shaftmen are now employed driving the 12 west back underneath the sink in the bottom of adit, from which some good lead was broken; this will prove if this shoot of ore continues to hold down, and also lay open ground to enable the ventilation of the deeper levels. The water in the mine is gradually rising, and is now above the roof of the 22. I trust a change in the weather will soon take place. We have permanently fixed our large cog driving wheel, also the pinion-wheel and shafting for jiggers. We shall now look to the 63 ft. level, below the 52, to sink in a pitch.

BERRY AND BUSON.—John Christophers, James Mayne, St. Agnes, June 11: Fortnightly Report: The lode in the 62 west is ill-disordered. Having driven 2 fms. beyond the slide, we are now driving south, where we are looking for it daily. In the 40, west of engine-shaft, we are stopping the bottom of the level by four men; the lode is worth 2 tons of blende per fathom. In the 30, west of Tonkins' shaft, we are stopping the back by six men; the lode is worth fully 2 tons of blende per fathom. In the 30, east of Tonkins', we are driving a cross-cut north by four men from the main lode, to intersect the level; we have about 2 fms. more to drive to cut it, if it holds the same underlie as in the level above. The 20, east of Tonkins', is now driving by four men; here we have a very kindly end. The lode is fully 3 ft. wide, worth about 1 ton of blende per fathom, with good stones of lead and copper. This end is all in solid ground from the adit to the 20 and all under it, where we hope to find good paying ground. In the 20, west of engine shaft, which we have been clearing with so much perseverance, we are glad to say, we are through the broken ground, and up in the end we find a very pretty lode 4 ft. wide, worth about 1 ton of blende per fathom, besides being strongly mixed with copper and munda. Our new dressing house is up, and very nearly covered in.

CAEGYON.—T. Hodge, June 16: The 70 east end to six men, at 12s. per fathom, the lode in which is 10 ft. wide, producing a good mixture of lead through out. The stop in the 10, west of engine shaft, is worth 10s. per fathom; the lode is worth 7s. per fathom. We have four men engaged clearing the old stops below the 70; the old workings are wide, which renders progress slow.—South Lode: Two stops in back of the 20 east, for 10 fms. in length, are worth 2½ tons of blende per fathom; a very nice lode. In the 30, west of cross-cut, we have opened on the course of the lode about 5 fms., worth on an average 2½ tons per fathom; the lode in the present end is worth 2 tons per fathom, with more lode standing to the south. I have suspended all the bargains on this lode during the low price of blende. If the price of blende advances so that the ore might be sold at 4s. per ton, it would pay well. We are in a good position for stopping, and I think we shall be able to do so.

CALDECK FIELDS.—J. Polgaize, June 11: Taking into account the shallowness of the mine, not being so deep as the valley, the very little ground laid open on the course of the lode below the deep adit level, and the many difficulties attending our operations, both in pumping and drawing stuff, it must be encouraging to the shareholders to know that, in the midst of many difficulties, we have just sent into the market about 80 tons of ores. We are now making preparations for the portable engine, which will assist us in many ways during the dry season. There is now 10 fms. of mine in the mine, which is a great thing. The 20, east of junction shaft, is getting near the great south lode, now under water. The 20, west of junction shaft, is worth 20s. per fathom, the lode is worth 20s. per fathom. The stop in the back of the 20, on north lode, is worth 14s. per fathom, at present under water. The lode in the 10, west, on north lode, is worth 18s. per fms. No. 1 stop, in back of the 10, is worth 20s. per fathom. No. 2 stop, in back of the 10, is worth 12s. per fathom. The winze sinking below adit, or 90, on north lode, is worth 25s. per fathom. The 10 east, on great south lode, is of the most encouraging character for copper, worth about 8s. per fms. I expect it to improve. It is a beautiful lode. No. 1 stop, in back of the 10, on great south lode, is worth 15s. per fathom. No. 2 stop is worth at present 10s. per fathom. The stop in bottom of the 10 is worth 15s. per fathom. The winze in the bottom of the 10 is worth 15s. per fathom. The 20, east of junction shaft, is worth 20s. per fathom. The 20, west of junction shaft, is worth 20s. per fathom. The stop in the back of the 20, on north lode, is worth 14s. per fathom, at present under water. The lode in the 10, west, on north lode, is worth 18s. per fms. No. 1 stop, in back of the 10, is worth 20s. per fathom. No. 2 stop, in back of the 10, is worth 12s. per fathom. 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Saves a marked improvement, being 3 ft. wide, worth 18s. per fathom. In the 26 driftage west the lode is 2 ft. wide, worth 10s. per fathom. This level has been raised through the old workings of good tin ground, and a rise now being put up in the back to worth 12s. to 14s. per fathom. We have opened on the Cornish Girth lode in the 16 west about 2½ fms.; it is fully 2½ ft. wide, composed of quartz, muddle, and copper, strongly impregnated with tin. A cross cut south from the lode has been extended towards the new south lode 5 fms., and it is expected will intersect the same in two or three months. This lode, where it has been opened on at the adit level, is large and masterly, quite 5 ft. wide, and another lode of considerable promise, and also seen at the adit, is expected to form a junction with the former at or near the point of intersection. We have cleared up the old skip-drivings on the No. 2 lode about 25 fms. deep. The appearance of the lode in the old drivings, wherever it is being stripped down, is highly favourable, and will, in all probability, produce a good deal of tin. I look up on the future prospects of this mine, if vigorously carried out, as second to none in the district. Besides the valuable points alluded to there are others of equal promise, and may be reached in a comparatively short time.

WEST MARIA AND FORTESCUE.—W. Skeewis, N. Coward, June 17: West Maria Lode: There is no change to notice in the ground in Willeford's shaft. In the 93 west we have commenced taking down the lode, which continues to be worth 30s. per fathom. Next week when further taken down we shall be able to give 20s. to 25s. per fathom. In the 93 east the lode is further improved, and is now worth 25s. per fathom. The slope in the back of the 93 is still being carried up by the side of the lode, which in the early part of next week we shall commence to take down.—Arsenic Department: The kilns are working very satisfactorily, and producing arsenic equal to our expectations.

WEST MILWAU.—W. Francis, June 17: The 70 yards cross cut south is being driven with all speed from the West Meadow shaft, in the best bearing limestone measures. We expect to intersect the first in east and west vein within 30 yards from the present end, and in these measures we may confidently hope it will prove productive.

WEST TANKERLEY.—Arthur Waters, June 18: The boundary shaft below the 50 is being sunk by a full pair of men, and is going with fair speed. The 50 south, on main lode, is opening out well, there being good ore on both sides of the driveage, and worth 2½ tons per fathom. The winzesinking below the 46, south of shaft, and about 10 fms. south of the 50 end, is going down in a strong lode, worth 2 tons per fathom. The 46, south of old men's winze, is in a lode 3 ft. wide, worth 1 ton of lead and 2 tons of blende per fathom, and improving for lead as we near the shale. The cross-cut west of this level, to cut Lawrence's lode, makes fair progress. The weather being so dry we have not sufficient water for feeding the boiler of the winding engine.

WEST WHEAL TALGOU.—June 16: The lode in the 125 end is just the same as reported last week, yielding 10 tons of ore per fm. The lode in the rise in back of this end is not quite so good as it was, now yielding 3 tons of ore per fathom; we hope to communicate this rise with the 125 very soon—probably early in next week. The lode in the 95 end is getting more ore, although not rich; it is all being saved for dressing. The stoep in back of the 85 is yielding the same as last reported—10 tons of ore per fathom. The 85 end west is looking well; the lode is from 7 to 8 ft. wide, yielding 12 to 13 tons of ore per fathom; it never looked better than it does now. The 85, north of the 85, is falling away, and is glad to say. Yesterday the rise in back of the 85, about 3 fms. behind the end, the lode yielding 10 tons of ore per fathom. The lode in the 75 end west is 4 ft. wide; the south part of it for 3 ft. wide is spotted with ore, and looking kindly. The north part for 2 ft. will yield from 2 to 2½ tons of ore per fathom; this end is turning up as we anticipated—that is, getting more ore. The lode in the 75 end has improved, now producing 2½ tons of ore per fathom; it is a kindly lode.

WHEAL AUGUS.—T. Trahair, June 17: The tribute pitch in the back of the 40, east of the skip-shaft, is looking better. There is no change to notice in the other pitches. The 40, east of the skip-shaft, is yielding 15 tons of ore per fathom.

WHEAL CREBOR.—J. Andrews, June 17: The lode in the stoep in bottom of the 120, east of Cock's shaft, is 6 ft. wide, worth 25s. per fathom. The lode in the stoep in back of the 120 east is 5 ft. wide, but from the rise 2 fms. east is not of much value, being mixed up with kills and capel, but from that point for several fathoms further east is worth from 20s. to 25s. per fathom. The lode in the 108 east is 2½ ft. wide, yielding a little copper, but not sufficient to value. In the stoep in back of the 108 east we are still desiring the lode. The ground in the 72 cross-cut north is still, consequently the progress in driving is rather slow. The lode in the 72 east is small and unproductive. In the 120 east the ore is carrying about 2 ft. to the north of the lode, which is composed of capel, quartz, and muddle, and produces a good store of copper ore. A very promising lode.

WHEAL GRENVILLE.—E. Hosking, W. Bennetts, June 13: In the new shaft sinking below the 150 the ground is favourable, and the lode produces saving work for tin. The rise above the 150, on the South Corduroy lode, is worth 20s. per fathom. The lode in the 140 fm. level, east of cross-cut, is worth 15s. per fathom. The rise above the 140 fm. level, east of the cross-cut, is looking better, and worth 28s. per fathom. The lode in the north shaft, sinking below the 120, is 2½ ft. wide, worth 10s. per fathom. The lode in the 120 east is yielding 15 tons of ore per fathom. The lode in the 110 east is 12 ft. wide, producing saving work.

WHEAL GRENVILLE.—E. Hosking, W. Bennetts, June 18: The lode in the rise above the 140 has much improved in the last day or two, and is now worth more than 35s. per fathom; it is the finest and strongest tin we have ever seen in the lode, and we hope in a few days to be able to put a higher value upon it. The rise is up 10 fms., and this improvement speaks well for the shallower levels. There is no other change in the mine.

WHEAL KILLY (St. Agnes).—S. Davey, John Williams, June 13: New Shaft, lower lode. There is no change worthy of remark in either of the bargains throughout the mine since our report for the quarterly meeting.

WHEAL RUBY.—J. Richard, Jun-17: In driving the adit level west of cross-cut we have met with a branch of the east and west lode, and after going forward a short distance further I expect to find the lode its full size without crossing either way, as from present appearances I believe the lode has not been moved by the cross course anything to notice. I have not seen more water flowing from a lode for some years than here; to the west of cross course for several fathoms it was very dry. I hope next week to be able to report that we have come upon the main lode in a settled state, and of a productive character.

WHEAL CXY.—W. Rich, M. Rogers, S. Coade, jun., June 13: We have had to turn in new balance-bols to pumping engine at surface (the old one being very old) consequently there has been very little done in the 160 during the past few days; the water is, however, again pumped out, and I intend to get the balance-bols in the rear of the 160, and to sink the lode in the 160, and to sink the lode in the back of the 140, towards King's shaft, by the side of the lode, with the view to hole to the level above as speedily as possible. The 30, east of Kings, is worth 8s. per fathom. The 120 east is worth 6s. per fathom. The lode in the 110 east is worth 12s. per fathom. The 100 east is worth 10s. per fathom. The 80 east is worth 6s. per fathom. We have not nothing of importance in the 30 cross cut north other than several small branches of copper. The 40, west of incline, is worth 8s. per fathom. We are making good progress in the rise above the 130 towards Hind's shaft, and are sinking the shaft below the 80 by six men.

CHAPEL HOUSE COLLIERY.—The output is well kept up, and good profits are being made. The market for coal is becoming firmer, and the Chapel House Colliery will, of course, get its full share of increased profits from any rise which may take place in the price of coal. A seam, known as the "Park" coal, which underlies the company's property, has been cut in an adjoining mine much thicker and better than it was believed to be. This is a very favourable auspice for the Chapel House Colliery, as it will not only add extra coal to the company's stock, but it will also be sold at a high price. It is also to be noted that the moderate prices of the estimates given in the original prospectus of the company. This is a point which in these days ought to be duly appreciated.

THE PROVIDENCE MINES.—The accounts have been audited by Mr. F. W. Dabb, on behalf of the adventurers, and it is gratifying to find them as might, indeed, have been expected) scrupulously correct. The balance against the adventurers March 25 was £287, and up to April 1st they stood at £287. On the other hand, calls are credited 1685s., and 34 tons of tin have been sold at from 54d. 12s. down to 44d. per ton for 1778s.; these, with sundries, left a balance against the adventurers of £564s., to which must be added various sums, bringing up the debt to 1844s. Calls to the amount of 578s. still remain unpaid. A list of shareholders, with their residences, is appended to the statement of accounts. It appears that very few shares, comparatively, are held in Cornwall. Of the 1120 shares into which the mine is divided 36 have been relinquished. There are 78 shareholders in Cornwall, holding 59 shares, averaging four apiece, and 153 shareholders living out of the county, holding 77 shares each. The adventurers are scattered all over the three kingdoms, and as well in the Channel Islands, France, &c.

NEW PEMBROKE.—A portion of this mine, called Edgemoor's, now worked by flat rods attached to New Pembroke 50 inch pumping engine, is to be taken as a going concern. It is intended to open up the flat rod shaft, which has been cleaned, and timbered, and other expenses incurred, at a cost of about 5000l. Nearly 40 years ago the mine was successfully worked for copper only, and about 150,000l. dividends said to have been declared.

HERODSFORD.—At a meeting held at the mine, on Tuesday, the accounts showed a balance of profit on the four months' working of 11l. 11s. 6d.

WHEAL AGAR.—The committee has just purchased a steam-tamps, 44 in. engine, two fly-wheels, and boiler, with 24 head- of stamps complete, also 74 frames for dressing tin, with sundry other articles required, at a very moderate price. The water is out to the 150, pitwork fixed, and rapid progress is now making. In six weeks more the lode in the mine will be reached, when sinking on a rich and large lode will be resumed.

CORNISH MINE SHARE MARKET.—During the past week the share market has been very quiet, and there is scarcely a noteworthy feature to record. Although, however, a dullness has set in for the third day, there has been scarcely any alteration in prices. The West Seton Tin Mine, which was introduced on the 28th inst., has shown the fine appearance of the mine and a report that a dividend will be declared at the next meeting, for which, however, the revenue was the slightest foundation. We are glad to hear that West Seton adventurers are in treaty for the purchase of Wheal Seton Mine and materials, and hope the bargain will soon be closed, and the district placed beyond danger from the influx of water. Every effort should, and will, doubtless, be made by the West Seton committee to satisfactorily arrange the matter, and there should also be a disposition on the part of the Wheal Seton executive to deal liberally with the case. These were not effected through any quibble at the great question would fall on West Seton, the neighbouring mines, and the heads of the parties more immediately concerned be covered with lasting disgrace. We hope there may be no fear of this.

The following are the closing prices:—Carn Brea not much dealt in at 69 to 71. Bargoll quoted 2 to 2½. Cook's Kitchen, 9s to 10s; a little business has been done. Deleaths dealt in at 47 to 49; East Pool, 10 to 10½, steady; East Lovell, 2½ to 13½. Parabola quoted at 26s. to 28s., and it is said the little mine is opening out well. Providence, 2½ to 2¾, and enquired for. Rowley, 3 to 3½, South Cornish at 8s. to 10s. South Carn Brea not much dealt in at 3½ to 3¾. South Cornish 2½ to 13½. St. Ives Consols, 11 to 12, but no transactions recorded. Tincroft, 2½ to 3¾, rather quiet. A fair business has been done in West Basets at 10¼ to 11. West Fences kept steady at 13½ to 14. West Seton, 28 to 30; quiet. West Tolguis largely dealt in, and advanced from 48 to 62, leaving off moderately firm at 60 to 62. Wheal Bassett 22½ to 27½; Wheal Kitty (St. Agnes), 9 to 14; Wheal Uny, 2½ to 2¾.—West Britton.

TIN-PLATES.—The strike still continues, and the consequent condition of the trade is lamentable.

COPPER--(Messrs. J. Piteairn-Campbell and Co., Liverpool).--Business transacted during the fortnight comprises on the spot hereabout 3090 tons bars, at 74 $\frac{1}{2}$ to 75 $\frac{1}{2}$ lbs. per ton, and 750 tons regulus, at 15s. 3d. to 15s. 4 $\frac{1}{2}$ d. per unit. To arrive here, or within a prompt, about 1275 tons bars, at 77 $\frac{1}{2}$ to 80 $\frac{1}{2}$ p. unit. To arrive here, or within a prompt, about 450 tons regulus, at 15s. 3 $\frac{1}{2}$ d. per unit, and 250 tons regulus, at 15s. 3d. per unit, and 2105 tons bars, at 15s. to 15s. 3 $\frac{1}{2}$ d. per unit. Quantities are 75 to 81 $\frac{1}{2}$ for Chili bars, 15s. 3d. to 15s. 4 $\frac{1}{2}$ d. for good ore and regulus, and 15s. 3 $\frac{1}{2}$ d. for Corocoro barilla. Arrivals here during the fortnight of West Coast S. A. produce:--Patagonia, from Valparaiso, 710 tons bars; Rimac, from Valparaiso, 30 tons bars; John Elder, from Valparaiso, 640 tons bars and 150 tons ingots; Loch Doon from Valparaiso, 42 tons bars; Silurian, from Chanaal, 725 tons regulus; Lair from Valparaiso, 26 tons regulus; Spirit of the Morning, from Valparaiso, 3 tons bars. At Swansea--Rose of England, from Gatico, 600 tons ore; Hercules, from Pena Blanca, 540 tons regulus; Herradura, from Tocopilla, 535 tons ore and 13 tons regulus. Stocks of copper (Chilian and Bolivian) in first and second hand likely to be available, we estimate at--

	Ores.	Regulus.	Bars.	Ingots.	Barilla.
Liverpool.....	2123	460	12,586	150	—
Swansea.....	2559	3294	1,424	—	—
Total.....	4682	3724	14,280	150	—

Representing about 17,000 tons fine copper, against 23,000 tons June 15, 1876, and 13,700 tons June 15, 1872; 21,900 tons June 15, 1871.

Messrs. Vivian, Younger, and Bond—COPPER: Chili bars have again been in active request, and a large quantity has changed hands during the past week at an advance of 20s. to 30s. per ton on previous quotations. Good cord river brands sold at from 78s. to 79s. 10s., and specials at 79s. to 80s. Several parcels were also sold at 79s. to 80s. for arrival and with three months' prompt. About 1500 tons Chilean regulus on the spot and to arrive sold at 15s. 3d. to 15s. 4 1/2d. per unit, and 1400 tons ore at 15s. and 14s. to Australia a rather limited business in Wallaroo at 89s. 10s. to 90s., and Burra cake 57s. 10s. to 58s. Ingots of various brands at 85s. to 88s. Manufactured has sold at 92s. to 94s. for strong, but demand only moderate. Tough and best selected at 94s. and 85s., and 86s. 10s. to 87s. 10s. respectively.—TIN has gradually become easier during the last few days. Straits having sold at from 103s. 6d. down to 101s. 6d., and Australian 99s. to 98s. closing dull and doing little. Small sales of Banca at 106s. to 105s. At the same time the Australian ore on Tuesday last, 95 tons sold at 52s. 10s. to 55s. of good quality. English only in moderate demand, and prices are 2s. to 3s. easier, at 101s. to 102s. for ingot.

Messrs. Henry Rogers, Sons, and Co.—COPPER: A large trade has been done since our last, and prices have steadily advanced every day till we are now at 80*l.* for brass, 80*l.* for Wallaroo, 87*l.* 10*s.* for Burra, and English copper very difficult to procure for early delivery. The stocks of copper seem to be decreasing at a marvellous rate, and the deliveries this month will probably exceed those of last. It must not be forgotten, however, that these heavy deliveries have arisen consequent upon our moderate prices, and that the demand must necessarily be checked by great and speedy advance as has been experienced in the past fortnight; nevertheless, as so much business has cleared hands, and as English as well as foreign consumers have been buyers, the figures will be unfavourable for some little time yet. The demand may even continue, as comparing the present stocks with those for many months past the present price is not beyond the value of copper. We close rather easier for Chili bars, but with a good demand for English at full rates.

Messrs. James and Shakespeare.—COPPER: About 1500 tons of Chili were sold since Monday last, at 15s. 3d. per unit, but importers now ask about 17s. 6d. and are not likely to receive even 7d. delivery for metal for the first half of the month having amounted to 4100 tons (against imports of about 2500 tons), caused a large enquiry for Chili bars, and the market has been cleared of all parcels obtainable on reasonable terms. The rise in values during the week was fully 40s. per ton, but after the large operations of the last few days we have to note, as usual, a slight reaction from the highest figures paid, and a few sales are reported at our lowest quotations. Buyers, however, seem disposed to purchase freely at minimum rates; and, as statistics are now the most favourable on record for the day, 72, 73, and 74,000 tons at 15s. per ton, it may fairly be supposed that a further advance on present values is likely to ensue. The total of the deliveries for the second half of the month at only one-half of those for the first fortnight, would give a total of 33,600 tons in round numbers, as taken from the public stocks since Jan. 1, and this during a time when consumers have consensually only taken for the supply of their pressing requirements; yet quotations show a fall during the year of about 5 per cent. in comparing to day's prices with those ruling at the opening, whilst statistics have improved about 11 per cent. during the same interval. In the latter part of 1871, when consumers went to the limit of their requirements, the average price for the first half of the year was 15s. 6d. per unit; the deliveries from June 1 to Dec. 31 were 33,700 tons, and quotations supplied about 18s. per ton; Chili bars rising from 67s. 10s. to 85s. 10s., and Australian cake from 76s. 10s. to 94s. per ton. A fair trade has been done in Wallaroo and Burra, but these sorts being held for comparatively high values there was not the same enquiry for them as for other descriptions. English kinds are in good request, specially tough and select, and several manufacturers are full of orders for the former until the close of August.—**TIN:** English is quiet, and can be obtained on slightly better terms. Foreign sorts have been inactive since the 12th inst. The market shows a decline of 10s. per unit from 100s. to 90s. per cwt. Straits sold from 103s. down to 102s. Australian, 99s. 6d. to 98s., and Billiton at 99s. cash, the market closing yesterday with sellers at the lowest prices. At the dictating of ore on Tuesday last 95 tons of fine quality Australian realised from 2s. 15s. to 50s. per ton. For the sale on July 7 only 22 tons have been declared.

Messrs. Pixley and Abell.—Considerable amounts of GOLD have arrived during the past week; about 330,000*l.* from New York; and 65,000*l.* from London, 100,000*l.* from India, 20,000*l.* from the West Indies; and 27,000*l.* from Porto, from the Brazil. Most of this has already been taken to the Bank of England, and the remainder, with the exception of about 100,000*l.*, will follow. At present there is no demand for export. About 670,000*l.* in bars and coin, has been taken to the Bank since our last circular, and 43,000*l.* has been withdrawn. As reported by us last week, the arrivals of SILVER continue on a limited scale, not more than 50,000*l.* in bars and coin, arriving from the East. There is no demand for the East, but a good enquiry for the Continent, and the market is firm at the notation of 58*½*d. per *oz.* standard.

With a rising market for tin and copper, and, therefore, greatly improved prospects for mining, and with money down to 2½ per cent., the MINING SHARE MARKET still continues dull and depressed, and there has been far less business transacted this week than we had to report upon in our last. Prices, also, for some of the more prominent mines have been weaker, while, generally speaking, they are merely nominal.

It would be difficult to account for this state of things did we not hear on all sides complaints as to the dullness of trade, and the absence of speculation or business to any extent in railways and stocks in general. Better prices for metals, however, must ere long result in a reaction and a rise in mining shares.

The sales of copper ores at the Ticketing, on Thursday, is described as having been unusually brisk, and there was a further advance in the standard for ore of 2*l*. 7*s*. per ton. The quantity sold (928 tons) realised 10,309*l*. 15*s*. 6*d*., or an average of 5*l*. 7*s*. per ton.

The shares dealt in this week, though to a very limited extent, comprise Wheal Grenville, Parys Mountain, Prince of Wales, Carnrea, Tankerville, Van Consols, West Chiverton, Hingston Down, Dolbath, Bog, East Lovell, Marke Valley, New West Rosewarrn, Old Little Hill, Pennerley, and a few others.

Carn Breas have not maintained their rise, and leave off weaker, 65 to 70; Dolecoat, 45 to 47½; Tineroft, 32 to 34; Cook's Kitchen, to 94; East Lovell, 12 to 13.

Wheal Grenville chafes have been in request, and leave off 5 to 10; the lode in the rise above the 140 has improved, and is now reorted at 35% per fathom; the finest and strongest tin, the agents ate, was seen in the mine. Wheal Crebor, 2 to 2½; the sale of ore Thursday, 135 tons, realised 727. 10s., but as the quantity in ality was 160 tons, the sale, including carriage, would amount to 90%, and pay the costs of the mine. The best parcel realised 117. 0r ton, the highest ever yet obtained by the mine. West Tolgus advanced, to 57. 60.

West Basset, 9½ to 10½; the lode in the 144, east of Grenville's shaft, is worth 10¢ per fathom. About this shaft there are 12 stopes working, worth on an average 16¢ per fathom. At Percy's shaft the lode in the 144 west is worth 20¢ per fathom. The winze below its level is worth 30¢ per fathom; here there are 11 stopes, worth on an average 20¢ per fathom. At Thomas's shaft there are 21 pitches, working on an average tribute of 12s. in 17. At Pascoe's five pitches, 12s. 6d. in 17. for copper. Bog. 17s. 6d. to 22s. 6d.; Cargoll, 1½ to Devon Great Consols, 20s. to 25s.

At the New Pembroke meeting the accounts showed a loss on four months' working of 590*l.*, and a call of 2*s.* per share was made. It is resolved also to dispose of the western or Edgcombe's portion of sett. The sales of tin for the four months were 2300*l.*—40 tons copper credited, but not sold, 280*l.*; debit balance, 115*l.*. The mine is looking well, and only requires a better price for tin to show profits. East Van, 2*s.* to 3*s.*; Great Laxey, 11½ to 12*s.* (twelve 2*s.* 3*d.*); this mine is improving.

Providence Mines, 3 to 3½; the accounts to be presented at the meeting, on Wednesday, show a balance of liabilities of 1844, 14s. 3d. The costs (labour) are charged up to April 24. The tin credited to my 7 realised 1778, 12s. 2d. Herodsfoot, 4 to 4½; at the meeting the accounts showed a profit on the quarter of 117, 11s. 6d. Markeley, 10s. to 15s.; Old Treburgett, 14s. to 16s.; Pennerley, 25s. to 30s.; Prince of Wales, 11s. to 13s.; Roman Gravels, 15½ to 16½; Southman Gravels, 10s. to 15s. The Bankerville shares have been flat, and leave off 8½ to 9; the level at the bottom of Watson's shaft continues, the agent states, to show

Barry's Mountain, 108, to 128. 6d.; the slopes in this mine, all in new ground, and with the copper ore improving in quality, are worth on the aggregate 44 tons of ore per fathom and 15 tons of sulphur. The advance in copper will materially assist this mine, as there are large quantities that would pay to work with a better price for the ore. There is some talk in the market, also, of a new process whereby poor ores and halvens, of which this mine has an almost unlimited supply, can be utilised to a profit, and this has caused large purchases to be made of these shares, and a good deal of attention paid to the mines, which are now in 16,923 shares, with 3*l*. per share fully paid up. None of the preference shares, we understand, have been issued, and it is expected they will not be required in consequence of the anticipated arrangements. When Kitty (St. Agnes), 8*½* to 9; Wheal Uny, 2 to 2*½*; Hingston Down 22*s*. 6*d*. to 27*s*. 6*d*.; South Frances, 13 to 14; New West Roseward 2 to 2*½*; Old Bottle Hill, 1*½* to 2*½*.

The Market for Mine Shares on the Stock Exchange during the week has favourably compared with the increasing depression and inactivity pervading every other investment market. This is clearly traceable to the general and apparently well-grounded impression that with a revival in trade—of which there appears to be several significant indications—metals will early respond to the improvement, ensuring a corresponding advance in mining values.

American mines continue much depressed in the absence of satisfactory intelligence, which, coupled with the crippled financial condition of nearly all the companies, induce holders to press sales. Emma, Flagstaff, Last Chance, and Tecoma have ruled lower, and are weak at quotations, arising from continued realisations, and also from the fact, now too evident, that the extraneous aids by which recently these shares were artificially supported have been entirely withdrawn. The exception in this department has been in Richmond shares, in which a material advance has been established upon the extremely favourable advices referred to below.

Hydraulic Mine Shares have again been in request. Two companies—Sweetland Creek and Cedar Creek—have received telegrams announcing a further "clean-up," the profit in each case being good. Sweetland Creek, 53 days' run, \$14,000; and Cedar Creek, three claims, May working \$9,500 profit. Sweetland shares have advanced, and close firm, with an upward tendency. Cedar Creek shares have been enquired for, and remain firm at quotations. A good business has been done in Birdseye Creek shares at quoted prices. Blue Tent shares firm, without alteration. Two dividends have been declared during the week—Sweetland Creek, 4s. per share; and Birdseye Creek, 2s. 6d. per share, both free of income tax.

The Metal Market has been fairly active. Copper is in demand at steadily advancing prices, and the tendency continues in favour of sellers. Tin remains steady. Lead firm, but not so much doing. Spelter rather more active.

Richmond Consolidated shares have improved to @ 7; the cable received, "Week's run, (two furnaces), \$39,000; start second furnace to-day; charcoal plentiful." The delay is being rapidly made up by the increased returns, and if the third furnace does an equal share of the work the produce will soon be a-head of that for last year. There is also a fair prospect that the profit will bear a larger proportion than heretofore to the gross returns. The daily saving of 4 tons of mineral dust from each furnace will add largely to the annual income. The Eureka *Cupel* of May 23 states that "The ore body in the Richmond Mine is so great in extent, and the workings underground have been carried out so systematically and withal so mechanically, that but comparatively few men are required to take out daily sufficient ore to keep the whole series of the company's furnaces in steady operation." We learn that the patents have been issued from the United States Office. New Pacific, @ to 4; in another column will be found a report from the manager, from which it appears in driving west the lode keeps its size, while ore is appearing in the west; this is an important feature, and may lead to good results. Emma shares are flat, 2½ to 3½; Flagstaff, 3½ to 3¾; Last Chance, 1½ to 1¾; Tecoma, 1 to 1½; Utah, 1½ to 1¾; the dressing machines are in full work, but it is not expected the particulars of the result can be received before the end of the month.

Mineral Hill have raised during the week 55 tons of ore, of an average grade of \$50 per ton, at a cost of \$952.

Sweetland Creek, $4\frac{1}{2}$ to $4\frac{3}{4}$; Mr. McLean telegraphs a further clean-up during the week, with a net result of \$14,000. This is exceedingly good. The accounts and directors' report have been issued preparatory to the general meeting. The accounts show that notwithstanding the forced idleness at the mine for a period of four and a half months during the autumn of last year, the profit realised was amounted to 13,043*l.* 15*s.* 6*d.* The total sum received for the gold obtained during the year was 25,615*l.* The cost would thus be about 48 per cent. of the returns. The directors propose to increase the reserve fund in the usual manner, and will then have about 9000*l.* invested in Consols. Altogether the company, both financially and commercially, may be said to be thoroughly sound and prosperous. We publish the reports and an analysis of the accounts somewhere. The usual quarterly dividend of 4*s.* per share, free of income tax, has been declared, payable on the day of the annual meeting. Cedar Creek, 2 to 2*1*/₂; a telegram from Col. Ludlum (the company's superintendent) states that only three of the claims were ready to clean up at the end of the month. The result from these is, however, considered good, the net result being a profit of \$3500. Birdseye Creek, 3*3*/₈ to 3*3*/₈; in another column will be found a letter from the superintendent, from which it appears that he is just leaving the drifted ground in the Neece and West claim, and getting ready to go to the gravel bank. All the various works were progressing as usual. The directors have declared a quarterly dividend of 2*s.* 6*d.* per share, free of income tax, payable on June 30. Blue Tent, 5 to 5*1*/₂; no further news is to hand this week, everything appears to be progressing satisfactorily. Holcombe Valley, 1 to 1*1*/₂; in another column is published a report of the special meeting, held this week, in which we consider the position of the company. The statement made to the meeting must be considered as entirely satisfactory as far as the development of the mine is concerned, and if funds are forthcoming to erect the mill there appears to be no doubt of a handsome return to the shareholders. To provide funds the directors propose to re-issue the forfeited shares at par (1*l.*) and to give a bonus, provided by the vendors, of one share for each two taken up. The shares to be offered in the first instance to members, and if not all taken the remainder to be offered on the same terms to the public. A long discussion took place, resulting in the acceptance of the directors' proposal, and about 1500 shares were subscribed for before the meeting broke up.

Colorado Terrible, 4 to 4½; the report to be submitted at the forthcoming meeting (which appears in another column) shows that the year's operations have resulted in a gross profit of \$2514, which, after being debited with interest paid, 1131½, leaves a net profit of \$1382½. The result which compares favourably with the previous year. The stock of ore and other assets, valued in last year's accounts at 12,914½, have been realised; and the debts of the company, amounting at the same period to 12,482½, have been paid. Although unexpected delays have arisen in bringing the new dressing-works into operation, it is fully expected the large stock of ore (2066 tons) will be dressed during the season, so that in the course of the current year the whole of its value will become available; already sufficient has been sold to enable the directors to recommend the payment of a dividend of \$66, per share, and they feel justified in promising further dividends as the proceeds of ore sold come to hand. The expenses of

providing machinery, buildings, and the new system of dressing-works have been 20077, which has been added to the property account, but was provided for out of the revenue receipts.

Sierra Buttes, 2 to 2½; Independence, 2½ to 3; the fourth level east has been run 10 ft. during the week; the ore continues to look well, and there will be no difficulty in running all the stamps. How well, and the shoot of pay ore is the manager cannot say at present, extensive is evidently a large body of it that will yield a good profit for some time to come. Rapid progress is making in opening up this body of ore, and it will take but few more men than at present employed to furnish the mill (20 stamps) with a full supply of ore. The superintendent further states that the bottom level has been run 15 ft. east since resuming work in it, and the rock is looking better.

St. John del Rey (stock), 250 to 255; the report in anticipation of the meeting to be held on Wednesday appears in another column. With regard to the future prospects of the mine, Mr. Gordon, the manager, says—That looking at the present state of the company's plans and operations in Brazil, the fine mineral lode now partially laid open and accessible, the power provided for dealing with that mineral body, whether as regards its drainage, working, or raising to surface, the quality of ore and its gold contents, as shown by its produce in the stamping-mills, there is good reason to expect that within the period of 18 months from this time the Morro Velho Mine should give a produce of gold that will enable the company to pay as good a dividend as it has done at any period since its establishment in Minas Geraes. Don Pedro, 3 to 3½; the produce for April amounted to 5100 oits., of the value of 21677, against a cost of 2729, leaving a loss of 5717; in April last year the produce realised 16000, against a cost of 36457. Rossa Grande, 3 to 3½; the April produce amounted to 1656 oits., of the value of 7037, against a cost of 8917, leaving a loss of 1877; the mineral treated is better than for some months past.

Great Wheel Vor, 3 to 3½; at the quarterly meeting on Wednesday (reported in another column) the reports stated that the whole of the machinery was drawn to surface, and would be ready for sale on or about July 7. The Chairman stated that out of 90000, estimated value of the plant—20000, had already been realised, 30000 would be reserved for developing the western ground, and about 40000 would be offered for sale. Looking at the very slight cost to be incurred in the future laying out of this ground, probably under 2000 per month, the money realised from the sale will, it is considered, be ample to drain out the water and test the lodes. The company's audited accounts, brought up to April 30, showed cash in hand and calls unpaid together amounting to 17086 18s. 2d., against liabilities amounting to 29717 0s. 6d., or a balance against the company of 12632 2s. 4d. At the meeting on Wednesday the accounts showed a balance against the company of only 2067, which must be considered, under all the circumstances, highly satisfactory, and it leaves the company with the value of the machinery and materials (say) 70000, to carry on operations, less the debt of 2000. No call was, of course, made, as the company is in a perfectly sound and solvent condition, and we shall be glad to learn that the efforts of the shareholders to work the lodes in the western part of the set are rewarded by opening up a good mine. The position of the ground is favourable, and it partakes of a promising character for the production of mineral, as the lodes parallel, both on the north as well as the south, have given enormous profits, whilst the same vein worked about 300 fms. east has paid the shareholders in dividends during the last 14 years over 88,000. Penstruthal, 12s. 6d. to 15s.; the first portion of the stamping machinery is at work, and regular sales of ore will shortly be commenced.

Van, 25 to 30; there is no change at the mine, operations both at surface and underground are progressing as usual, the various ends remaining without alteration. Van Consols, firm at 4½ to 4½; there is no change in the mine since last report, otherwise than the commencement of the cross-cut to intersect the Van lode from the main shaft, about 160 fms. west of the winze, which is yielding 10 tons of lead per fathom; the lode will be reached at this point next month. Bog, 3 to 4; the bottom level is slightly improved, other parts of the mine without change. The sampling this month is again increased, the agent offering 60 tons for sale. The annual meeting of the company is fixed for the 24th inst., before which date the accounts will be in the hands of the members. Pennerley, 1 to 1½; from the report in another column it will be seen that the mine is improving, at Potter's Pit especially. The annual meeting will be held on the 24th inst. We understand that the accounts and report will be issued before the meeting.

Russia Copper, 2½ to 3; the directors are prepared to receive loans on mortgage debentures carrying interest at the rate of 8 per cent. per annum. At the formation of the company, mortgage debentures were issued to the amount of 30,000, and the additional sum now offered for subscription is 40,000, which will rank *pari passu* on the whole properties of the company, and immediately after the Russian mortgage of 30,000. Up to June 30th the debentures will be allotted to shareholders only, interest will accrue from the date on which the money is received, and will be payable half-yearly.

Subjoined are the closing quotations:—
Bog, 3 to 4; Carr Brex, 80 to 85; Cook's Kitchen, 9½ to 10½; Devon Great Consols, 12 to 13; Dolomith, 40 to 45; East Consols, 12 to 13; East Lovell, 12½ to 13; Great Laxey, 11½ to 12; Great Wheel Vor, 3 to 3½; Kingston Down, 1 to 1½; Marke Valley, 1½ to 2; Parys Mountain, 9 to 11; Pennerley, 1 to 1½; Perkins Bench, 10s. to 12s.; Roman Gravel, 16 to 16½; South Condurow, 3½ to 4; Tincroft, 32 to 33; Tankerville, 8½ to 9; Van, 25 to 30; Van Consols, 4½ to 4½; West Bassett, 9½ to 10½; West Chiverton, 1½ to 2; West Tankerville, 1½ to 1½; Wheel Grenville, 4½ to 5; Almaden and Tiritio, 3½ to 4; Birdseye Creek, 3½ to 4; Cape Copper, 2½ to 3; Colorado Terrible, 3½ to 4; Chontales, 3½ to 4; Don Pedro, 3 to 3½; Elberhardt and Aurora, 3½ to 4; Emma, 1½ to 2½; Flagstaff, 3½ to 4; Frattino and Bolivia, 3½ to 4; Independence, 2½ to 3; Last Chance, 1½ to 2; Malpas, 3 to 4; Malpas, 3 to 4; New Pacific, 7s. 6d. to 10s.; New Quebrada, 3½ to 4; Port Phillip, 3½ to 4; Rio Tinto, 3½ to 4; Rio, 3½ to 4; Richmond Consolidated, 6½; Sweetland Creek, 4½ to 4½; St. John del Rey, 250 to 255; Sierra Buttes, 2 to 2½; Utah, 1½ to 1½; United Mexican, 4 to 4½; West Esquair Lie, 2½ to 2½; Blue Tent, 5 to 5½; Holcombe Valley, 1 to 1½; New Zealand Kapanga, 4½ to 5; Cedar Creek, 2 to 2½.

COLLIERIES AND IRON COMPANIES.—The directors of the Ebbw Vale Steel and Iron Company have issued their report, preparatory to the general meeting on Thursday at the Town Hall, Manchester. It is one of the most favourable issued by any iron company during the present year, and is by far the best presented to the shareholders since the formation of the company. Although the civil war in Spain has not only prevented the company importing from their own mines, but has led to the suspension of several other advantageous contracts for ore from Bilbao, and although the last six months have been very unfavourable for iron trading, the directors are enabled to announce that the balance-sheet shows a net profit of 321,050 9s. 8d. Including the dividend paid in December last, the shareholders will receive 17 14s. 6d. per share, free of income tax, while the sum set aside for suspense outlay account will exceed 48,000. As this item disappears the dividends will naturally increase, and the shares rise in value. The capital is divided into 75,000 shares of 32s. each, 29½ paid. Closing price, 24 to 25, showing a rise of 2s. on the week. Chapel House shares are rather in demand at 4½ to 5. West Mostyn Coal, 38s. to 40s.; Clee Hill, 7s. to 9s.; Newport Abercarn, 3½ to 3½.

The proprietors of the Bodmin and Wadebridge Railway Company held a meeting yesterday at Waterloo Station to consider a Bill which has passed the Commons entitled "An Act for Incorporating the Temple Mineral Railway." This branch will be some five miles in length, and will tap a new district lying around the hamlets of Blisland and Temple, enormously rich in red hematite ores and chinalay of the richest description. Some of the hematite is said to yield nearly 60 per cent. metallic iron—the theoretically possible quantity. Thorpe's Gawber Hall, 15 to 16; Omoa and Cleland, 75s. to 80s.; Whitehaven Iron, 3 to 4; Wedgwood Iron, 4 to 6; Silstone Fall, 4 to 4½. The directors of John Brown and Co. have issued their report, recommending a dividend of 5 per cent., carrying forward a balance of 98397. The 1000 shares with 700 paid, stand at from 5½ to 10½ dis. Marabella at one time touched 105s., and close 4½ to 5½; New Sharlston, 6½ to 5½ dis.; Ashbury Company, 500 to 600; Silstone and Dodworth, 200 to 210.

Bolcklow and Vaughan Works at Eshton are still mostly idle; the A Shares have declined to 21 to 22 prem.; the Five per Cent. Preference Shares are firm at 20 to 21. The report of C. Cammell

and Co. for the year ending on April 6 shows (including 18,920 18s. balance from previous year) an available surplus of 132,888 9s. 1d. After paying the sum of 40,000, on account of the large collieries recently acquired, and carrying forward a balance of 12,888 9s. 1d., the directors will recommend the payment of a dividend of 10 per cent., which absorbs 80,000. Most of the colliery owners around Barnsley are in a very unsettled condition with their men. At the New Gawber Hall it has been announced that the 10 per cent. reduction agreed to by the Miners' Council would be accepted, but that another reduction of 10 per cent. would be enforced after a month. The horses have been drawn out of the Silstone Colliery, Ifton Rhyn, 30s. to 40s.; Altam Colliery, 5 to 5½. The directors of the Dunraven Adare Coal have issued an appeal to the shareholders to surrender their coupons for the guaranteed 10 per cent.

At the Truro Ticketing, on Thursday, 1928 tons of copper ore were sold, realising 10,309 15s. 6d. The particulars of the sale were—Average standard, 105 17s.; average produce, 7½; average price per ton, 57 7s.; quantity of fine copper, 149 tons 9 cwt. The following are the particulars of the sales:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
May 21.	3386	103 14 0	6½	44 8 6	12s. 9½d.	283 18 0
June 4.	1731	101 14 0	8	57 6	13 5½	67 5 0
18.	1928	105 17 0	7½	57 0	13 10	69 1 0

Compared with the last sale, the advance has been in the standard 2½ 7s., and in the price per ton of ore about 4s.

Messrs. Grant Brothers are inviting subscriptions at 102½ per cent. for 123,300 6s. 6d. DEBENTURES OF THE CITY OF TORONTO STERLING LOAN, created in pursuance of the Special Act of Parliament of the Province of Ontario, in the Dominion of Canada, entitled "An Act to Authorise the Corporation of the City of Toronto to Construct Waterworks in the City of Toronto," and of the Special Act of the same province to amend the same. The amount authorised to be raised for the construction of the waterworks is \$1,000,000, or 236,000 sterling. Of this the sum of 102,700 was raised under the first Act of Parliament, and the remaining sum of 123,300 is now to be issued. Both loans are equally secured by a special rate levied upon the whole assessable property of the city. The debentures are to be bearer, and are for 100 each. In the official statement of accounts issued by the city, dated March 21, 1874, the revenue of the Corporation for the fiscal year ending Dec. 31, 1873, as certified by the city auditor, amounted to \$895,419. The value of the property in the City of Toronto liable to be rated was, according to the assessment made this year, \$45,043,675, or about 9,000,000 sterling. Similar Quebec and Ottawa loans are quoted 4 to 6 prem., and the February Toronto loan is at 103 to 105. The debentures now issuing are quoted 1½ to 2 prem.

The YNSAWDRE COAL, COKE, AND BRICK COMPANY, with a capital of 70,000, in shares of 100 each, to acquire for 45,000, the right to work the mineral estate of the same name, in the parish of St. Bride's Minor, Glamorgan. The royalties are 10d. per ton of 2520 lbs., on an output of 40,000 tons per annum; 9d. per ton on the excess over 40,000 up to 70,000 tons; and, when an output of 70,000 tons per annum is reached, then 9d. per ton on the whole quantity. The property contains about 240 acres, of which nearly 200 are held under a lease with 53 years unexpired; it abounds in coal, iron, and fire-clay of the best description. The taking is described as a "perfect bed of coal," containing about 100 ft. of workable coal. The property has been inspected and favourably reported upon by Messrs. E. Daniel, W. Habakkuk, and H. Lewis, both as to its present value and future prospects. It is estimated to contain at least 12,000,000 tons of coal which can be worked; this, at an output of 800 tons per day, would last the full term of the lease. Two pits have been sunk, and the veins intersected. The coal is of the highly bituminous class, well adapted for house, forge, and gas purposes, exceptionally free from sulphur, and from which a very superior coke is produced, specially adapted for the manufacture of steel rails. It is proposed to erect coke ovens contiguous to the pits, and a brick manufactory will soon be at work for utilising the excellent fire-clay found on the property. The prospectus will be found in another column.

The shares of the Buenos Ayres and Campana Railway Company are 7½ to 15½ prem. The Rio Railway Company announces that the coupons due on July 1 on the issue of \$10,000,000 Seven per Cent. Convertible Gold Bonds will be paid on and after that date at the office of Messrs. Bischoffsheim and Goldschmidt.

EXPORTS OF COAL.—By the Monthly Circular of Messrs. Higginson, of Liverpool, we learn that the quantity of coal exported in May was 962,962 tons, against 1,136,649 tons in the corresponding month of 1873, showing a decrease of 173,687 tons. The particulars are—From the Northern Ports, 447,928 tons; Yorkshire, 63,321 tons; London, 4557 tons; Liverpool, 54,973 tons; Severn Ports, 305,772 tons; and Scotch Ports, 89,341 tons. The increase was—Yorkshire Ports, 4734; London, 80 tons; Liverpool, 5164 tons; and Scotch Ports, 2342 tons. Decrease—Northern Ports, 145,477 tons; Severn Ports, 40,500 tons. Total exports, January to May inclusive, 4,601,882 tons; corresponding period last year, 4,599,888 tons; increase in 1874, 1994 tons.

DENBIGHSHIRE CONSOLIDATED.—To ascertain the value of ore above the 112 east a rise has been started, and some solid stones of lead taken out before a foot of ground was through. Before the meeting is held it is confidently believed that the pioneer points will be arrived at. A great rise in the price of shares is expected.

POLIOSE.—We are glad to learn of the accession to the tin-bearing mines of the Breage district of another very promising adventure. Poliose Mine is situated close to Wheal Vor and Great Work, between both, and is considered to be the first approaching the line of its being placed on the Dividend List. We observe there was a sale of tin on the 12th inst.—8 tons 12 cwt. 0 qrs. 25 lbs., at 54 10s., producing 439 6s. 2½, and making 50 tons 3 cwt. 0 qrs. 2 lbs., amounting to 2449 8s. 9½, raised and sold within the last 12 months.

**** With this week's Journal a SUPPLEMENTAL SHEET is given, which contains—Original Correspondence: A Case for the Certificated Colliery Managers' Association; Clee Hill Colliery Company; Emma Mine—American Patents (R. Knapp); Kalsie Gas, No. VII. (I. Baggs); "The Science of Investments" (R. Tredinnick); Slate Quarries as an Investment (E. W. Jones); Callington as a Mining District (J. Buckingham); Pennerley Mine, and its Management; Pennerley and Tankerville.—The Cardiganshire Mines, No. I.—History and Abuses of Condurow, Black Stone Breckers.—Mining Sketches, No. II.—Mining Operations in Ireland.—Rocky Mountain Mineral Concentration Company—Nova Scotia Gold Deposits, No. IV.—British Enterprise in Costa Rica—Foreign Mining and Metallurgy—Patent Matters, &c.—Meetings of the Holcombe Valley Gold, Anglo-Australian Gold, Clifton Silver, West Tankerville, New Pembroke, Cwm Efan, Great Wheel Vor, Dunraven Adare Coal and Iron, Eclipse Gold, West Milw, Scottish Australian Investment, and Ohio Companies.**

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Notices to Correspondents.

* Much inconvenience having arisen in consequence of several of the Numbers during the last year being out of print, we recommend that the Journal should be fixed on receipt; it then forms an accumulating useful work of reference.

SWANSEA VALLEY STEAM COALIERIES COMPANY.—I thank you very much for the publicity given to a letter from "A Shareholder" in this company on May 28, because it enables me to ask your correspondent whether he holds shares in either of the other colliery companies brought out at the same office, and whether he can inform me when I, a shareholder, may expect a dividend?—ANOTHER SHAREHOLDER: June 17.

BROSFLOYD MINE.—May I ask, through the Journal, when any lead was sold by this company? The sales used to be reported some years ago, and we hear some times of a few tons of lead going over the wire to the stores at Cwmab. I wish the managing director would give us some useful information in addition to the reports the agent sends up, so that we can form some idea of the progress of the company.—A SHAREHOLDER.

TANKERVILLE AND PENNYRILEY.—I notice correspondents referring to these mines in the Journal of the last two weeks, from which I presume they are not acquainted with their position exactly. It is a fact the latter mine is improving, and their last working of 80 tons might have been 100 tons without using any extra effort, but the future is being considered. The mine is not being worked from hant to month, but is being placed on the track of permanency, which is creditable to the present able manager. More attention will be paid to Pennerly at no distant date. I have no interest in Tankerville, but shall content myself with watching the result of both mines compared in a few months hence.—ANOTHER SUBSCRIBER.

ECLIPSE MINE.—We could not insert the letter from Capt. Thomas Faulk, dated New Almaden, May 25. The matters referred to can be better arranged by communicating with the parties named than by publication.

MINERS' LAMPS.—I am in want of the addresses of makers of miners' lamps. Can any of your readers supply me with the address of the manufacturer of Holmes' self-lighting inextinguishable lamp? It is represented as a very simple arrangement, being a tin box filled with pieces of phosphide of calcium, supplied with a float to swim in the water. I wish to know if it has been used for any purpose but a signal or danger lamp, such as to light up stations, or for hand lamps.—MINERS' LAMPS.

QUOTATIONS FOR MINE SHARES.—We have frequently stated that, with regard to the quotations of many mine shares, it would be impossible to sell them at the quotations given in the Share List—or, indeed, to effect a sale at any price whatever in the market; yet, as the transactions are vouched for as having taken place, we are bound to record the prices as business done. It should be understood, however, that the prices are only those obtained by the promoters or others to a similar position from the public.

Received.—"J. B."—"E. M. E."—"Reader" (Bristol)—"A. R. D." The Glasgow Caradon Consols Mine, St. Cleer, Liskeard—"H. G."—"G. H. P."—"J. C. B." (France) had better employ a solicitor—"Shareholder" (United Bituminous Colliery)—"B." (Leeds).

SCALE FOR ADVERTISEMENTS.—Our charge for general advertisements is—six lines and under, 4s.; per line afterwards, 8d. Average, 12 words per line.

SHARE DEALING.—We never interfere in the sale or purchase of shares; neither do we recommend any particular mine for investment or speculation, or broker through whom business should be transacted. The addresses of most of the latter appear in our advertising columns.

AMERICAN SUBSCRIBERS.—In reply to several enquiries, it may be stated that subscribers in the United States can be supplied with the Mining Journal, post free, at the price of \$8.50, gold per annum, payable in advance, by remitting to Mr. D. Van Nostrand, publisher, and importer of scientific books, &c., Murray-street, New York; or, direct to our Office, 24, Fleet-street, E.C.

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, JUNE 20, 1874.

THE MINERS' NATIONAL ASSOCIATION, &c.

The wages question in the coal trade seems to have had the effect of not only decreasing the popularity of the miners' leaders, but of some of the great associations as well. Of this there was unmistakable evidence in the proceedings which took place at the meeting of the council of the Miners' National Association at Manchester. The president, Mr. MACDONALD, M.P., in the course of his opening address, said charges had been brought against him for not calling a meeting of the council some time since for the purpose of considering the case of the men now on strike in South Staffordshire, with a view to assisting them in their struggle. Those who preferred such a charge did so evidently in ignorance of the constitution of the Association, from which it appears that the council has no power whatever to make a levy for the support of the men now on strike. In that respect the National differs in every way from the Amalgamated, over whose destinies Mr. HALLIDAY presides. That body directly supports and manages strikes and everything that relates to them, as well as the rates of remuneration which its members must accept. On the other hand, the National is a confederation of associations, with objects in common, the representatives of which meet for deliberating and consulting together on all subjects in which the miners are interested, and influencing legislation in their behalf. The business transacted at the meeting at Manchester related principally to the altered state of the coal trade, and the strikes now prevailing in several districts. It was stated that the Association was powerless to make a levy in aid of those who were on strike, whilst the income of one halfpenny per member was just sufficient for the ordinary expenses. Mr. BRITAIN, of South Staffordshire, remarked that some of the members in his district considered that their case was one of a lock-out, and had doubted whether he had paid the usual levies to the National, because the latter had not supported them. The position of the Cleveland ironstone miners was also considered, with a view of determining the best means for bringing the strike to a close; and for that purpose Mr. BURT, M.P., and Mr. P. CASEY, of South Yorkshire, were deputed to visit the district, and endeavour to bring the dispute to a close. This will be a much easier matter now than it would have been a month ago, seeing that the deputation sent to the council to seek pecuniary assistance were informed that the Association considered the stoppage of work to be a strike on the part of the men, and not a lock-out by the masters, so that they could not recommend help under such circumstances. The funds of the Cleveland Association, too, were all but exhausted, whilst the response made to an appeal issued two or three weeks since to other societies of working men was most discouraging. The time is, consequently, most opportune for effecting an arrangement.

Both Mr. BURT and Mr. CASEY have had a good deal of experience in conducting negotiations in connection with wages questions, are well acquainted with the actual position of the coal and iron trades at the present time, and it is, therefore, to be hoped they will be successful in persuading the men to resume work, which they certainly had no substantial ground for leaving. To prolong the struggle any longer would be worse than folly, for it could only result in bringing a great deal of misery and distress into hundreds of families in the Cleveland district, which but a few weeks ago were prosperous and happy. That a reduction of wages in connection with the coal and iron trades could not be contended against was pointed out by Mr. MACDONALD and other speakers, and it is to be hoped that the advice given on the subject will be appreciated by the thousands of miners who are now under notice in the Yorkshire and other colliery districts. Since the meeting in Manchester Mr. MACDONALD appears to have been visiting the miners in Scotland, and in alluding to the Labour Commission, of which he is a member, he makes what we cannot but consider as a startling and really sensational statement. He said that the Commission now sitting "would bring to light things which would astonish even the duller, and which would result in the destruction of the system of an unpaid magistracy, and lead to the appointment of men who by their experience, their independence, and impartiality would be able to deal justly in questions between employers and employed." This, indeed, would be a sweeping change for the two Houses of Parliament to agree to. That in many districts the decision of a stipendiary magistrate would be more satisfactory in those matters in which workmen appear as defendants than those given by gentlemen of unimpeachable integrity, who, however desirous of deciding strictly according to the law, have not had that training essential to the mastering of abstruse legal points, we know full well. Still, to effect such a great alteration in the administration of justice

there must have been evidence of a very astonishing character. We shall, therefore, look forward with deep interest to the issuing of the report of the Commission to see the grounds which require such a great change as that mentioned by Mr. MACDONALD necessary.

OUR COAL EXPORTS.

Our coal exports have exhibited, upon the whole, no material variation this year. Up to the close of April they presented a rather respectable advance, but in May they receded to 1,108,632 tons, against 1,241,942 tons in May, 1873, and 1,275,321 tons in May, 1872. For the five months ending May 31 this year they stood at 5,084,401 tons, while in the corresponding period of 1873 they did not exceed 4,956,298 tons, albeit that in the corresponding period of 1872 they had attained an aggregate of 5,338,013 tons. The demand on German account presented some improvement in May; but, on the other hand, there was a sharp decline in the exports to France, which receded for the month to 161,956 tons, as compared with 211,003 tons in May, 1873, and 181,337 tons in May, 1872. Our exports of coal to France have been rather materially curtailed this year, having declined in the five months ending May 31 to 946,405 tons, as compared with 981,654 tons in the corresponding period of 1873, and 1,055,891 tons in the corresponding period of 1872. The development of new French workings and the dulness of French commercial affairs this year are probably the causes of the falling-off thus indicated in the French demand for our coal. Certainly, the exertions which have been made to develop the extraction of coal in the Nord and the Pas-de-Calais ought by this time to have produced some result, and probably this has been the case; at the same time, account ought also to be taken, we fancy, of the stagnation which has prevailed during the last few months in the great French industrial centres, a stagnation which has not yet been wholly removed, although it appears to have been mitigated to some extent. A sensible increase must be noted in the exports of our coal to Germany, which amounted, to May 31 this year, to 672,555 tons, against 551,508 tons in the corresponding period of 1873, and 691,461 tons in the corresponding period of 1872. It will be seen that there has been a marked advance in this year's shipments, but it is difficult to indicate to what precise cause this advance is to be attributed. This year's exports to Germany appear likely to attain an aggregate of from 1,250,000 tons to 1,500,000 tons. Those to France, although somewhat reduced, will also probably exceed 2,000,000 tons in 1873, an aggregate which would have been considered a very extraordinary one 20 years since, when the French grumbled a good deal at having to take (say) 1,000,000 tons of coal annually from Great Britain. It is easy enough to see why France finds it necessary to make such very considerable importations of English coal; even now the coal production of France falls very far short of the quantity of coal which the French, even in comparatively dull times, consume every year. But the case is different with Germany. Germany sends coal with some freedom to France, to Belgium, and to her other neighbours, and yet she is fain to import English coal to the extent of at least 1,250,000 tons per annum. We have been sending considerably more coal this year to Sweden and Norway, and the same may be said to some extent of our shipments to Denmark. To Spain and Italy our coal exports have remained almost stationary this year, but they have shown a marked progress as regards Egypt, a country which is making considerable efforts to participate in what grandiloquent French writers term the great industrial movement of the 19th century. It may be interesting to note the precise extent of our exports of coal to Egypt to May 31 this year; they amounted in that period to 267,641 tons, against 248,855 tons in the corresponding five months of 1873, and 181,800 tons in the corresponding five months of 1872. The increase which has taken place has thus continued from year to year, and even in May it was still proceeding.

Altogether, including 1,222,367 tons of coal shipped for the use of steamers engaged in the foreign trade, we sent abroad 2,306,708 tons of coal to May 31, this year, or 1,261,342 tons per month. At this rate, our coal shipments for the whole year will be 15,136,104 tons, or nearly 15 per cent. of the whole extraction of black diamonds effected annually from the British soil. Some writers on the subject have contended that, having regard to the present great dearth of coal, this shipment of 15 per cent. of our annual extraction ought to be discontinued, discouraged, and even prohibited. It is clear, however, that a shipment of 15 per cent. of our coal production to foreign countries, although it may aggravate scarcity and consequent dearth, cannot wholly have created it. What has made coal dear is, after all, the persistent continual growth in the home demand, which has for the time outstripped all calculations, although it may soon be again overtaken by the great efforts which have been made in the course of the last two years to extend production in England and Scotland. Meanwhile, we are again piling up heavy figures this year as regards the value of the coal exported from our shores. Setting aside coal shipped for the use of steamers engaged in the foreign trade, and confining ourselves solely to the shipments made to foreign customers and the colonies, we find that the 5,804,401 tons exported to May 31, this year, were valued at 4,892,206*l*. The corresponding value of 5,338,013 tons of coal exported to May 31, this year, was 3,212,283*l*. The coal exported this year has thus been worth nearly 20s. per ton, while the corresponding value in the first five months of 1872 was only about 12s. per ton. However, in the first five months of 1873 it was nearly 21s. per ton.

EXPORTS OF RAILWAY IRON.—The exports of railway iron from the United Kingdom exhibited some progress in May, having amounted in that month to 97,587 tons, as compared with 85,975 tons in May, 1873, and 87,617 tons in May, 1872. In these totals Russia figured for 26,522 tons, 16,274 tons, and 9276 tons respectively; and the United States for 10,097 tons, 20,857 tons, and 40,840 tons respectively. In the five months ending May 31 this year railway iron was exported to the extent of 335,093 tons, as compared with 274,975 tons in the corresponding period of 1873, and 366,878 tons in the corresponding period of 1872. In these totals the exports to Russia figured for 49,258 tons, 33,318 tons, and 13,153 tons respectively; and those to the United States for 52,445 tons, 102,452 tons, and 221,033 tons respectively. The exports have increased this year to Russia, Sweden and Norway, Spain, Italy, Egypt, Brazil, Chili, British America, British India, and Australia; but they have decreased to Germany, Holland, Belgium, France, the Austrian Territories, the United States, the Spanish West Indies, and Peru. The value of the railway iron exported in May was 1,245,909*l*, as compared with 1,108,272*l* in May, 1873, and 899,011*l* in May, 1872; and in the five months ending May 31 this year 4,383,371*l*, as compared with 3,624,419*l* in the corresponding period of 1873, and 3,544,487*l* in the corresponding period of 1872.

MINING IN GERMANY.—A very large extension of Government mining works is reported by the *Berlin Boersen Zeitung* to be taken in hand in the Saarbrück coal fields. The plans have been elaborated under the immediate superintendence of the Chief Inspector of Mines, M. Krug von Nidda.

MINING IN TURKEY.—According to an official report just received from Bosnia Terzi, we learn that the serious project of the construction of a railway through Bosnia has had the effect of immediately calling attention to the great mineral wealth of that province. Two gentlemen lately arrived there—Messrs. Sigl and Faulkner—the first of whom is the manager of a large Austrian firm of machine manufacturers, and they made certain proposals for the concession to them of all the mines of coal, lead, copper, and iron which they might discover within 30 miles of the proposed line of railway. Accompanying them were several competent mining engineers, who selected some 32 different localities as rich in these various ores. They also declared, after sufficient inspection, that the whole valley of the Bosna was one large coal bed. The concession of all the required localities has been applied for, and negotiations with the Porte, which have been prolonged up to the present, are now said to be in a fair way of ending in a satisfactory conclusion. It is stated on behalf of the proposed concessionaires that they have some 20,000,000 ft. at their disposal, and on obtaining the concessions they demand can raise any further amount of capital which they may consider necessary. It is stated that a member of the firm of Messrs. Sigl has visited England in connection with the business. The object proposed is to work all the mines within reach of the railway, and also to establish a manufactory of steam-engines and rolling stock of all kinds for the use of the railway, as well as to supply it with coal on the spot. Very reasonably is the opinion expressed that if these project are carried out the country and the Government will derive an immense advantage from them, and the Porte will be wise to encourage them by all practicable means. It is stated

also that the concession of the Cinnabar Mines of Mount Inatch has been lapsed, as the holders, Mr. Wilkinson and others, have failed to find any person or company within the prescribed time to work them. A report which was circulated that 1,000,000 ft. had been given for them by an Austrian company proved to be without foundation, and it is also mentioned that recently an agent was sent to London to endeavour to place the affair here, apparently without success.

IRON IN GREECE.—According to an official report from Syra, a considerable quantity of iron ore has been shipped from the Island of Scirhos for England, by the H. B. M. S. "Metropole" Mining Company. The first shipment was 8000 tons of this ore for Newcastle, where it is said to have been successfully smelted at the Royal Greek Ironworks, erected near that town, and to have given 64 per cent. of excellent metal. The quality of the Scirhos iron ore is said to be equal, or even superior, to the best Spanish or Spanish ores. A consignment of about 500 tons has been shipped from Scirhos for Kionia, in order to make the exportation of smelting it with the coal found at that place. Several other mining companies have been formed in Greece lately, and to them, as well as to private individuals, concessions have been granted by the Government for working the various mines found in the district of Cyclades, but as yet no works of any importance have been established.

THE LATE PROFESSOR SEDGWICK.—Subscriptions are now being raised for the purpose of commemorating the memory of the late Prof. Sedgwick, whose scientific attainments were of more than European celebrity. Prof. Sedgwick, 11,000*l*, have been subscribed, of which His Grace the Duke of Devonshire, as Chancellor of the University of Cambridge, has given 1000*l*. It is proposed to erect a statue in a suitable part of Cambridge, with which the late Professor has been so intimately associated, and where he laboured so successfully. It is also proposed to erect a commodious and suitable building for holding the valuable and magnificent collection accumulated in a great measure by the untiring exertions of Prof. Sedgwick, and to contain the additions which are constantly being made to it, so as to make it worthy not only of the great man to whose memory it has been raised, but also of the town of Cambridge, and in a style worthy of the name it will hereafter be associated with. It is estimated that the sum required for carrying out the views of the committee will be about 20,000*l*, and there is no doubt but that amount will be raised, through the exertions of old and present Cantabrigians, and the numerous admirers of the late learned and esteemed Professor.

A NEW METHOD OF MINING.

We last week referred to the fact of Mr. Emmens having taken up several mines in the Callington district with a view of introducing new methods of dealing with low-class ores; and as the subject is one which materially affects mining interest generally, not only throughout Cornwall but in every mineral district of the world, we have endeavoured to obtain some detailed information upon the point.

It appears that on Mr. Emmens first visiting the neighbourhood of Calstock and Callington, some two years ago, his attention as a geologist was struck by the exceptionally favourable features which the flanks of the granite outcrops of Kit Hill and Hingston Down present from a mining point of view, seemed as they are by mineral lodes and cross-veins in a congealed country rock of killas, passing at no great depth into what may be termed a metamorphic stratum of granite, syenite, porphyry, &c. His investigation of the remarkable deposits of fire-clay which occur in this neighbourhood also led him to examine the elvan dykes that are found there, and these he discovered to be accompanied in the proximity of the lodes by indications of both silver and gold, a result which was confirmed by subsequent assays.

Struck by these facts, he proceeded to enquire into the reason why so rich a district was neglected by miners, and why mines that had once been worked on the slopes and in the valleys round Kit Hill and Hingston Down were for the most part abandoned. The cause he soon found to consist in the ordinary system of mining having been adopted—i.e., that the lodes had been wrought upon simply for courses and shoots of ore containing a high percentage of some particular metal, a system evidently unfitted for the development of a metamorphic district, where lodes must necessarily be impregnated more or less throughout their whole extent with a mixture of metallic ores, and where any one ore in an isolated form could only be expected to occur at rare intervals, a remark which applies not only to the neighbourhood of Callington but to most metalliferous districts. Mr. Emmens, moreover, ascertained that in the search after rich ore extensive workings had been laid open in the majority of the lodes of the district, and that the so-called "unproductive" levels were in reality driven through large masses of mineral containing gold, silver, copper, zinc, tin, arsenic, and sulphur in quantities too small to render the extraction of any one element profitable, but amply sufficient to yield a handsome profit if all or the greater portion were separated; and a further important feature consisted in the extensive burrows or waste heaps which were to be found in all directions outside the abandoned mines, and which were for the most part composed of the mixed minerals thus obtained.

It thus became evident that if a suitable method could be devised for treating such "low-class" ores, and extracting the whole of the merchantable products they contain, mining might be made to lose its speculative character, and to yield regular and remunerative returns. Each lode would, in fact, simply become a *mineral quarry*, and could be worked in a much more simple and efficient manner than is possible under the old system, while from the whole of the lode being removed *every rich bunch or shoot that it contains must necessarily be discovered*, instead of being passed by unperceived, as is too constantly the case under the present system of burying through the so-called "unproductive" ground with a minimum of exploration. Accordingly, this new mode of mining gives an assurance of rich "finds" from time to time, and of sure dividends in the interim. The chemical treatment of the ores in question in a economical manner was found feasible by the simple employment of a reagent, which Mr. Emmens informs us is usually found in the vicinity of metalliferous lodes in metamorphic foundations, as though it had been placed there by the hand of Providence for the purpose of enabling mixed and poor ores to be successfully dealt with. He thereupon commenced the erection of extensive works upon the premises of the West of England Fire-Clay, Bitumen, and Chemical Company (Limited), at Hingston Down, and by this time the works in question are so far finished as to be partially in operation, while by the end of July, or the beginning of August, it is expected that the whole of the process, from the crushing of the raw ores to the final casting of ingots of gold, silver, copper, &c., will be in full activity.

While, however, Mr. Emmens was thus engaged other attempts were made to accomplish somewhat similar results, and Mr. Barnard, at Harrowbarrow, on the southern side of Hingston Down, erected a small apparatus for the treatment of low-class silver and copper ores, by an improved method of chloridisation and precipitation. Finding that this was proving successful he brought the matter under the notice of Mr. Emmens, who, after carefully investigating the process, was so satisfied of its novelty and efficiency, and of its capability of being profitably worked in conjunction with his own method, that he agreed to become the proprietor of a patent for securing the same, and to work it in conjunction with his own method at the West of England works.

Thus is inaugurated a new era of mining, and the "Nascent copper" process will be eagerly welcomed both at home and abroad wherever poor copper and silver ores are found. Already at the New Great Consols Mine copper and silver are being extracted literally *by the ton* from huge heaps of wastes similar to those which cumber the ground outside every tin-dressing floor through Cornwall. At Wheal Newton, too (one of Mr. Emmens's mines), like results may be seen proceeding from the treatment by the Nascent copper process of ores, with which not many years ago the roads of the district were mended; whilst at Kelly Bray, which Mr. Emmens has commenced to work on the system of removing low-class as well as rich stuff, the indirect benefits above alluded to have been already exemplified in the shape of several valuable discoveries of ore containing very high percentages of copper and silver.

It is clear, therefore, that a revival of prosperity is at hand for the mines of Cornwall, and that by means of the "Nascent copper" process dividends may be earned by small mines, and fortunes be made by large ones. We are informed that the cost of the process is so small as to render possible the profitable treatment of ores containing even so little as 1 per cent. of copper, or 4 oz. of silver. In the case, then, of ores containing half as much again of these metals—or, in other words, in the case of hundreds of thousands of tons of waste ores which are now lying at surface in every part of the county—very large gains must result; and as this means not only

The feature of the local share market this week has been the sale

of a Sandwell Park share (110% paid) at 1050%, or at a premium of 940%. Such a premium is quite without precedent in local share transactions, the nearest approach to it we can remember being 40 years ago, when the Staffordshire and Worcestershire Canal shares were 140% paid, realised 1000%, each. Cannock and Huntington Colliery shares are 4% premium; Ivy House and Northwood Colliery, 1½ dis.; Chillington Iron, 6; John Bagnall and Sons (Limited), 6½; Patent Shaft and Axle, 5½ prem.

The North Staffordshire Iron Trade is without much change since our last report. The finished ironworks are doing 8 to 10 turns weekly. Ordinary bars are quoted 10% per ton. Buyers are only giving out orders sufficient to satisfy immediate requirements. Some heavy stocks of pig-iron have been accumulated. Coal is in plentiful supply, and considerable quantities are being sent into other districts. A large number of new collieries are being opened out in various parts of the coal field.

In the neighbourhood of Oakengates (Shropshire) the condition of the coal and iron trades has considerably improved during the last three weeks.

The directors of the Pelsall Coal and Iron Company (Limited) have issued their first report and statement of accounts. The profit for the year is 11,635%, and a dividend at the rate of 10 per cent. per annum is recommended, after writing off 1000% towards the preliminary expenses. The stocks of materials were carefully valued at the reduced price ruling March, 1874, and a liberal allowance has been made towards exhaustion of minerals and for depreciation of plant. The sinking of the new pit at Pelsall has been completed, and another pit is being sunk to the deep coal towards the out-crop of the mine. At the Coltham and Short Heath Collieries three shafts have been sunk to the yard coal seam, and the necessary winding and other gear has been erected. Two pits previously sunk have been opened out in the brown ironstone. The miners employed by the company at Pelsall are now on strike, and it has been found necessary to blow out two of the blast-furnaces, so that for the moment the company shares the common fate of iron and coal concerns throughout the country, but the Pelsall Coal and Iron Company undoubtedly possesses the elements of prosperity, both in regard to the development of mineral wealth and to the manufacture of finished iron. The present paid up capital of the company is 152,335%, in shares, and 38,533% in debenture bonds, but a portion of this has only recently been called up.

REPORT FROM SCOTLAND.

June 17.—We regret to have to continue our unfavourable reports of the state of the Pig-Iron Market. The demand during the first six months of this year, especially for shipment, has been very small, and on account of the curtailment of production, which has now existed to a greater or less extent for three months, prices have not fallen to a point sufficiently low to bring about any revival of business. The most prominent and disagreeable feature in the market during the past week has been the development of a most unhealthy speculation. One class of operators, tempted by the high prices, had sold iron they did not possess; while another class, tempted by the small quantity of iron in the country, sought to monopolise the stock, and put themselves in a position to dictate prices. The consequence of this state of matters is that legitimate business becomes more restricted every day, and great exertions are made to hurry every ton of available iron into store. Warrants have fluctuated during the week between 97s. and 105s., and close this afternoon at 97s. 6d. for prompt settlement.

SHIPMENTS.	Tons	1873
Week ending June 14, 1873	13,127	
Week ending June 13, 1874	6,483	
Decrease since Dec. 25, 1873	7,644	
Total decrease since Dec. 25, 1873	121,262	
Imports of Middlesbrough pig iron into Grangemouth:—		
For the week ending June 13, 1874	1,730	
For the week ending June 14, 1873	655	
Increase	1,075	
Total increase for 1874	28,856	

Under the supposition that their prospects were brightening, the Lanarkshire miners are sticking to their tents as if they loved them, and as if they could persuade their employers that living on nothing in a tent was far more enjoyable and manly than engaging in the business and reaping the emoluments of a life of activity. Since last week several furnaces have been put out of blast, and no business—except what is highly speculative—is being engaged in by the brokers on "Change, on account of the way in which the market is being rigged. As we noticed last week, if iron is not wanted the speculators can only reap a loss for their dexterity. The ironmasters do not mean to meet again until the miners have struck their tents, and brought their minds down to the working point.

On Monday a mass meeting of the miners of Stirling and Linlithgow was convened, when a vote of confidence in Mr. Macdonald, M.P., was passed, and they further declared their approval of his conduct in accepting a place on the Labour Commission. These resolutions, carried in Mr. Macdonald's presence, furnished a text for a lengthened address from the President, in which he reviewed the condition of affairs in the Stirling and Linlithgow districts, hinted pretty plainly that the works in Dumore were in a state which required the immediate attention of the Government. Inspector, spoke of his competence to give sound advice to the miners, because of the long schooling he had in questions affecting their interests, justified his connection with the Labour Commission, which he expected "would unearth and bring to light certain things that would astonish the very dullest in the community," and characterised as insane the struggle into which a section of the Lanarkshire miners had plunged in defiance of his warning. "No one (he said) was to blame but themselves. They fought against the inevitable, and when anyone fought against the inevitable in trade, or any other matter, failure must be the only result."

The strike at the Grangemouth pits has been terminated by the company's withdrawing their notice of March 12, and substituting another of June 12 current, in which they state that "it is to be clearly understood that the company's pits are to be open to all men engaged by the company, and that the Union will not interfere in any way with the working of the colliery, and that the workmen will abide by the rules of this date, now posted up at the works."

For Malleable Iron it would appear as if the buyers had completely deserted this market, as only the smallest dribbles are being offered, and prices are nearly nominal. The local orders for ship iron are being taken by makers in the South so low as 9% 15s. a ton overhead. A little has been done in half-inch and inch rods during the week, and a trifle in angle and bridge iron, but our rolling and plate mills are nearly at a standstill. The steel spindle works are somewhat busy, and something more is being done in machinery and pipes, but quietness pervades all branches of the iron trades here, although the shipyards are vocal with the sound of "hammers closing rivets up." The stagnation in the iron trade is reacting on the coal market, and although prices have not been officially reduced, coals can be brought (per agreement) much under what is considered the standard quotation. Stocks are increasing both here and on the East Coast; the Fife and Clackmannan masters complaining of the difficulty of disposing advantageously of Parrot Coal. Prices of all kinds are easier generally, and good orders could be cheaply and well placed just now. The shipments of the week compare favourably with those of the corresponding week last year, the figures being—for this year, 35,090 tons; same week last year, 36,772 tons.

The Messrs. Smith, of the Eglinton Engine Works, here, are adding to their large premises several new erections, which are to be used for boiler-making and bridge-building purposes, and a large smithy. The principal structure is smithy, which forms the extreme southern boundary of the works; it is a one-story building, about 204 feet in length, and 43 ft. wide. When these new buildings are completed and taken possession of for the operations of the firm, there will be erected on the West-street frontage, and on the site of the present smithy, a totally new building, four stories high.

The Kapunda Copper Company fourth annual meeting was held here on Monday afternoon—Mr. Jonathan Thomson presiding—when a dividend at the rate of 1 per cent. per annum was declared, and directors and an auditor were appointed.

At the Oakbank Oil Company annual meeting, held yesterday, a dividend was declared of 10 per cent. upon the capital stock of the company, after writing off 10 per cent. for depreciation on pits and plant, and paying maintenance and repairs out of revenue.

Young's Paraffin Light and Mineral Oil Company annual meeting was held yesterday—Mr. John Orr Ewing, of Levenfield, chairman of the company, presiding. The report of the directors was approved, and a dividend at the rate of 7½ per cent. per annum declared. The Chairman stated that, owing to important reductions in wages and the staff, together with various improvements at the works and in the management generally, considerable savings would accrue during the current year. On the other hand, the stocks of petroleum in this country were so excessive, and the prices at which they are selling are so low, that reduced quotations for burning oils will have to be accepted, which may thus counterbalance to a large extent the effect of the savings. But should a change for the better occur, owing to any diminution in the supply of petroleum, he had no doubt that the dividends of the company would be increased. The retiring directors—Messrs. Moffat, King, Kidston, and Kennelly—and the auditor, Mr. Moore, were thereafter re-elected; and a vote of thanks to the Chairman concluded the meeting.

On Monday night an explosion, attended with serious injury to three workmen, took place at Messrs. Robert Addie and Sons' Langloan Ironworks, Coatbridge. The accident was caused by one of the tuyeres giving way, and allowing a quantity of water to flow into the interior of the furnace. This falling on the molten mass within caused a sudden generation of steam, and the consequent fiery eruption from the furnace mouth.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

June 18.—At the lead mines in Derbyshire the men are working in their ordinary manner, and business goes on in its usual channel. The quantity of ore raised appears to be of an average, for one never hears of any startling finds, such as are reported from other districts, and which may probably arise from the fact that extensive mines do not often change hands in Derbyshire, so that there is not much to be gained by making places look unusually rosy. The few companies that own mines in the Peak and other districts are also not on such a very large scale as to cause any great excitement with regard to the prices at which the shares can be purchased. Our collieries and ironworks are differently circumstanced, for in them a great deal of capital is invested, and several of them are on a very large scale, regularly paying unusually high dividends. Foremost amongst them is the Staveley Company, whose pits and works find employment for something like 5000 workpeople. That the concern is in the highest degree profitable, and considered unusually safe, may be gathered from the fact that the ordinary 100% shares, on which 60% is paid up, are now quoted at from 53 to 55 premium. The Sheepbridge Company is also in a healthy state, if judged by its position in the share market. At Staveley a very fair business has of late been done in pipes and other castings, for which the foundries are noted, whilst a large tonnage of coal has been raised at the pits. Of late an increased business has been done with the metropolis from Staveley, there having been forwarded last month nearly 8900 tons. A large quantity has also been forwarded to Birmingham and the West. It is understood that the miners have just received notice of a reduction of wages, consequent on the altered state of the coal trade. The major part of the men are understood not to belong to any Union, and, having many advantages that are not enjoyed by miners generally, it is not expected that there will be any interruption to work. The Sheepbridge Company, largely engaged in the producing of pig and other iron and coal, have also given their colliers notice of a reduction of wages. Indeed, the notices have been pretty general, but it is expected that in some few instances there will be a brief turn-out. At Pinxton the men have been locked out, having refused the proposed reduction of 8½ per cent.

The Sheffield trades are much in the same state as when last reported on, and there is not likely at present to be any marked change. The business doing with America has been comparatively trifling as compared with the previous year or two, whilst Russia is still one of our best customers. The Bessemer establishments in the town, as well as those outside, are busy, and some of them have orders in hand for rails that, it is said, will last them for several months to come. There is no improvement as regards cast-steel, the demand being so moderate that many of the leading firms continue their men on short time. Files, saws, and edge tools are in tolerably fair request, but the table and spring knife branches are very dull indeed. Coal is rather easier to buy, but its reduction appears to have in no way affected the trade of the town.

Throughout South Yorkshire the wages question is causing a great deal of excitement, and it is almost premature to say what will be the result of the action taken by the colliery owners; but the prevailing opinion is that a considerable number of the miners will strike. Already about 300 have struck at the Dodworth Silkstone Colliery, near Barnsley, against the decision given by a gentleman whom they agreed upon as referee with regard to an old standing matter with reference to wages, but not bearing in any way on the proposed general reduction. No pay is given from the Association, because the men refused to accept the decision given against them. On Tuesday they held an open-air meeting, when it was agreed to appoint a committee to draw up a circular to be sent to all the lodges, with the view of overruling the decision come to by the executive. At the New Gawber Colliery matters have taken a rather singular turn, and the men received notice to the effect that the proprietors accepted the 10 per cent. reduction "agreed to by the Miners' Association on May 22, and confirmed on June 2." The notice, however, further states that "in 28 days from the date hereof we shall make a further reduction of 10 per cent. in your wages." It is needless to say the decision come to by the Association cannot be enforced against the men without their agreeing to it. The leaders of the Association are in very bad odour, and there is a strong feeling of antagonism on the part of the great body of the men against them. One company—the Willow Bank—have posted notices in the pit-hole that, owing to the general good conduct of their workmen, and their attention to their respective duties, it is not intended to reduce wages from May 28 until July 8; however, there will be no telling with accuracy what will be the result of the notices of reduction, but the probability is that several places will be standing.

IMPORTANT CONVICTION UNDER THE MINES INSPECTION ACT.—On Thursday last one of the first summonses issued, we believe, since the Act of 1872 came into operation, against a certificated manager for having only one shaft in connection with a colliery, was heard at Sherborne. The information was laid by Mr. F. N. Wardle, Her Majesty's Inspector of Mines for Yorkshire, and charged Mr. J. R. Robinson, certificated manager of Newton Main, near Castleford, with having violated the 20th section of the Act, which provides that in every mine to which the Act applies there shall be at least "two shafts or outlets, separated by natural strata of not less than 10 ft. in breadth, by which shafts or outlets distinct means of ingress and egress are available to the persons employed in such seam," &c. It was clearly proved, and indeed admitted, that the Act had been contravened. Mr. Robinson, therefore, pleaded guilty, and was fined 5%, and costs. It will, of course, be necessary to have another shaft, so that the Act shall be complied with, for the fine does not in any way remove the liability of the manager.

THE YORKSHIRE COAL FIELD, AND RAILWAY ACCOMMODATION.—That there is no more important coal field than that of Yorkshire is abundantly shown by the fact that during the last three or four years it has formed the battle-field of the great railway fights in the Committee Rooms of the House of Commons, as it did also in 1864, when the Great Eastern, by a line from Doncaster to Peterborough, proposed to carry coal from Yorkshire to London at a farthing per ton per mile. After that, in 1871, a Bill was introduced for a mineral line connecting the Manchester and Sheffield with the Great Eastern by a junction near to Peterborough, but being opposed by the Midland and Great Northern, although they were at war at the time, the efforts of the two great lines were successful, and the Committee threw out the project. In 1872 the Great Northern succeeded in getting a line from Nottingham to Derby, opening up the rich mineral district west of the Erewash Valley, and thus entering into the heart of the Midland coal field. Thus affected in a vital part, last year the Midland Company formed an alliance with the Manchester and Sheffield, and promoted a line from Doncaster to Ruskington, near Market Harborough, the entire length being 112 miles. The opposition of the Great Northern was again successful, although the South Yorkshire colliery owners almost to a man gave evidence in its favour. This session two lines of considerable importance with respect to the development of the minerals in the largest unworked coal fields in Yorkshire—and which only awaits railway facilities to be opened out—would send thousands of tons of coal weekly to our southern and other markets. The principal of those lines was that promoted by the Midland and the North Eastern, the Sheffield and Knottingley and Ferrybridge Railway to connect Swinton, near Sheffield, with the North-Eastern system. The distance was only 15 miles, but it would have effected a saving of seven miles in the journey between Sheffield and York, besides passing through a vast and valuable coal field, extending for miles along the route. It would have touched upon a great many places that have long been waiting for a railway to open out seams of the most valuable coal in Yorkshire, both as regards quality and thickness. The line would have passed through the at present locked-up coal fields of Bolton-upon-Dearne, Goldthorpe, Thurnscoe, Clayton, Frickley, going within a short distance of Huddersfield, and near to Hemsworth, between two which places there is the finest unexplored coal field in Yorkshire, being six square miles in extent, nearly level, the Barnsley Nine feet seam being at a distance from the surface of about 560 yards. The line would also have passed by South Kirby, where Mr. Leeman, M.P., and some other gentlemen recently secured a lease of about 1300 acres of coal from the Rev. J. Allart, and go onwards to Badsword, Ackworth, Pontefract, &c. In almost every one of those places there are beds of the best coal to be found in Yorkshire, so that it is not saying too much that were a line to pass through there the productive power of the West Riding in three or four years would

be increased not less than 2,000,000 tons a year. The rival line promoted by the Great Northern and the Manchester companies would have gone in a similar direction, and in some places would run almost parallel. An effort it appears was made to effect a compromise, but as the Midland and the North-Eastern refused to let the rival companies become joint partners in their scheme negotiations stopped, and the preamble of both Bills declared not to have been proved. The result is that after a costly fight, lasting 12 days, both Bills have been lost, and the opening out of an immense coal field delayed indefinitely, or until some agreement can be come to by rival companies. It may be said that the price of coal is greatly to the advantage not only of the public but of railway companies by increased traffic facilities being given for the development of our mineral resources. A marked reduction in the price of coal even at the present time could not fail to give a great impetus to many of our most important industries, especially those connected with the production of iron and steel. It is, therefore, to be regretted that the most important coal field in Yorkshire will have to be locked up for some time longer, but the time is fast approaching when the public interest will have to be taken into account before that of any railway or other influential company.

THE COMPANIES ACT, 1862 AND 1867. IN THE MATTER OF THE GEM TIN MINING COMPANY (LIMITED).

THE LIQUIDATOR OF THE ABOVE-NAMED COMPANY invites TENDERS for the PURCHASE of the WHOLE of the PROPERTY belonging to the said company, comprising the COMPANY'S INTEREST in the LEASE of the MINE known as the GEM TIN MINE, in the parish of Whitchurch, near Tavistock, in the county of Devon.

The mine has been extensively opened, and is complete with all necessary machinery. One great advantage, the whole is worked by water, and all steam machinery saved.

The plant consists of WATER WHEELS, pitwork, and fittings in the shafts and levels, stamping and dressing machinery, wagons and tramroad, and all necessary appliances, tools, &c., for carrying on an extensive mine.

Tenders to be made separately for the lease and plant, addressed to the Liquidator, as below, to be sent in on or before the 29th instant.

Permission to inspect the mine, full inventory of plant, and all further particulars, with conditions of sale, may be obtained of the Liquidator—

FREDERICK WARWICK, at his offices, 25, Bucklersbury, London, E.C.

TENDERS are invited for the PURCHASE of a VALUABLE TIN MINE, together with the LEASE of the SETT, the WHOLE of the valuable ENGINE, PLANT, patent DRESSING MACHINERY, BUILDINGS, and PITWORK, fitted in two shafts to the 150 fm. level, and complete underground rails and plant. The property is situated in a well-known district of Cornwall.

The mine has been opened to a great extent, and has returned large quantities of tin. Even on the workings since January last the sales of ore have more than paid working cost.

Full particulars and orders to view will be given to principals or their solicitors on application to Mr. FREDERICK WARWICK, 25, Bucklersbury, London, E.C.

IRON ORE MINE.

TO BE SOLD, BY PRIVATE TENDER, the CADEY CROOK IRON ORE MINE. This Mine is in the neighbourhood of DALTON, and very near the Lindow Coal Property. It is 20 fms. deep, with a good load of iron ore, worth over £7 per fathom at the present time. There is a PORTABLE ENGINE and HORSE WHIM, with a good LIFT OF PUMPS, all in good working order.

For any further particulars, apply to "J. B. L." MINING JOURNAL Office, 26, Fleet street, London, E.C.

IRON ORE ROYALTY.

A VERY VALUABLE IRON ORE ROYALTY TO BE SOLD, BY PRIVATE TREATY, in the DALTON district, adjoining mines proverbially rich for metallic ore. Several lodes pass through this valuable property, which have yielded great profits.

Address for particulars, to "J. P. E. B." MINING JOURNAL Office, 25, Fleet street, London, E.C.

THE WILSDEN COLLIERIES.

NEAR BRADFORD.

TO BE LET, upon a Lease for 14 years (or 21 if agreed upon), with possession from July 1st.

THE VALUABLE SEAMS OF COAL

Lying beneath the Commons within the Manor of Alerton and Wilsden (which were enclosed in 1840), and also beneath all other Lands within the same Manor, well known as NEW LANDS, consisting of TWO BEDS or SEAMS, known as the HARD BED and the SOFT BED.

This valuable colliery has been worked without any interruption for more than 50 years, the last 14 by Messrs. ISAAC WOOD and SONS (proprietors of an adjacent colliery at Denholme), whose lease expires on 1st July.

This coal is largely consumed in Alerton and Wilsden, and the neighbouring towns of Bradford, Bingley, Keighley, &c., and is capable of being greatly extended.

It is needless to say that the pits, shafts, and drifts are in full working order, and the plant will be taken at the usual valuation.

The average thickness of each seam is 18 in., but if found in any part less an abatement in rent will be made.

The highest tender above £50 per acre for the hard bed and £75 for the soft, with a minimum rent of £450 will have a preference, but the lessor is not pledged necessarily to accept the highest tender.

For lease to view, printed conditions, and other particulars, apply to Mr. W. M. MORTON, Land Agent, St. Ives Estate Office, Bingley; Mr. Booth, Mining Engineer, Halifax; or Messrs. J. WOOD and SONS on the premises.

Tenders to be addressed to Mr. MORTON on or before the 30th June inst.

St. Ives Estate Office, June 11, 1874.

SLATE QUARRY TO BE LET.

THIS IS AN UNDOUBTED VALUABLE QUARRY, if properly opened. It is situated within half a mile of the Parnum Station, on the Cambrian Railway, and one and a half mile of the town of HARELEIGH. Samples of the slates are on the bank, and also at the Hotel, Tremadoc, and the Abbey Arms Hotel, Festiniog. Four months' trial will be given.

Apply to Mr. G. RICHARDS, Rock-terrace, Harlech, Merionethshire.

TO INVESTORS.

TWO SPLENDID OPPORTUNITIES SUCH AS ARE SELDOM MET WITH—the one, a COTTON SPINNING CONCERN, ready for IMMEDIATE WORKING, and stocked with the most VALUABLE MACHINERY, principally new—the other, a LARGE IRONMONGERY BUSINESS, at present and for the past 22 years in ACTIVE TRADE, and which has always realised very large profits—ARE NOW OFFERING.

Bona fide investors only are invited to apply for interests therein. Adventurers, speculators, and those with the object of receiving promotion money, will not be treated with.

Those only who desire to secure a permanent income on a moderate investment need apply personally, or address by letter—

MR. HALLAS, PUBLIC ACCOUNTANT, 32, FAULKNER STREET, MANCHESTER.

Who will furnish the fullest information, and to probable investors furnish letter of introduction to view the properties.

WATER-WHEELS, TRACTION ENGINE AND WAGONS.

FOR SALE, A POWERFUL TRACTION ENGINE, with India-rubber tyres to the driving wheels, in excellent working condition; and TWO WAGONS, constructed to carry 5 tons each, to run with it.

Also, TWO CAPITAL WATER WHEELS, one of them 30 ft. diameter and 3 ft. breast, and the other 30 ft. diameter and 4 ft. breast.

Further particulars and prices on application to "D. W. M." MINING JOURNAL Office, 26, Fleet-street, London, E.C.

MACHINERY AND MINE MATERIALS.

FOR SALE, A 30 inch PUMPING ENGINE, with BOILER.

A 10 horse power PORTABLE ENGINE.

A 2½ horse power SEMI-PORTABLE ENGINE, on stand plate.

A WATER WHEEL, 32 feet high, 3 feet 4 inches breast, with iron axle, centres, and ring.

A WINDING CAGE.

Apply to—W. TREGAY, REDRUTH.

FOR PIT SINKING.

FOR SALE, a SUPERIOR 7-horse power PORTABLE STEAM ENGINE, with link motion reversing gear, winding drum gear, &c., complete (just finished sinking 90 yards). Price 100 guineas.

Apply to JOHN SIMPSON, Bank Chambers, Nottingham.

PIT SINKING AND WINDING COAL.

FOR SALE, and ready for immediate delivery, a 14, 18, 25, and 35 horse power PORTABLE STEAM ENGINES, with link motion reversing gear, winding drum, gear, &c., complete.

Also, a 9 and 15 horse power VERTICAL ENGINES, with link motion reversing gear, suitable for mining operations.

FOR SALE, An excellent PORTABLE STEAM ENGINE; and a 7-ft. FAN MORTAR MILL. Apply to—

BARROWS AND STEWART, ENGINEERS, BANBURY.

FOR SALE, ONE 50 in. cylinder PUMPING ENGINE, 10 ft. stroke in cylinder, 8 ft. in shaft, with ONE BOILER.

ONE 24 in. cylinder WINDING ENGINE, 5 ft. stroke, ONE BOILER and DRAWING CAGE, complete.

Apply to Mr. WILLIAM LANGDON, Northumberland Foundry, Launceston, Cornwall.

MINING MACHINERY.

MESSRS. F. W. MICHELL AND CO. have FOR SALE several

CORNISH PUMPING, STAMPING, and WINDING ENGINES, of different sizes; BOILERS from 6 to 12 tons each; PITWORK of all sizes; CORNISH CRUSHERS; STAMP AXLES; IRON FLAT-RODS; STRAPPING PLATES; and other MATERIALS in general use in Mines, &c.

EAST CARN BREA, REDRUTH, CORNWALL.

IN LIQUIDATION

**SALE OF VALUABLE MINING PROPERTY, known as the
EAST LLANGYNOG MINE**

MESSRS JOHN LEES AND CO. have received instructions from the Liquidator to SELL, BY PUBLIC AUCTION, at the Wynd-street Arms Hotel, Llanrhaidir, near Oswestry, on Tuesday, the 7th day of July next, at Eleven for Twelve precisely, subject to conditions to be then and there produced, the WHOLE of the above VALUABLE PROPERTY, in One Lot, as a going concern, held on lease for 21 years, of which are unexpired.

This property is very extensive and offers an excellent opportunity for economical and expeditious working. Many thousand pounds have been expended in opening up the various lodes contained in the setts. Several hundred fathoms of levels have been driven in the mountain, which is over 800 feet high.

The plant and materials consist of a 30 ft. WATER WHEEL, with a 3 ft. breast; two smaller ditto; smith and carpenters' shops, with tools, anvils, &c.; between 200 and 400 fathoms of tram and bridge rails; four jiggers; incline rails and drum; water courses and leets; dressing floors and sheds; three houses; offices; store-rooms; powder house; stabling for five horses, and numerous sheds; three valuable farms, &c.

Full particulars may be obtained of the solicitors, A. D. SMITH, Esq., 31, Great James-street, Bedford Row, W.C.; and CHARLES KEARSELY, Esq., 28, Brazenose-street, Manchester; or of the Auctioneers, 85, London Wall, London, E.C.

P.S.—Written orders to view the mine from the Auctioneers only.

MINING MACHINERY, MATERIALS, &c., FOR SALE.
TRELYON CONSOLS MINE ST. IVES.

TO BE SOLD, BY AUCTION (unreservedly), on the Mine, on Tuesday, the 30th day of June, 1874, at Twelve o'clock at noon, in suitable Lots, convenient to purchasers, all the

MACHINERY, PLANT, MATERIALS, AND EFFECTS
of and belonging to Treloyn Consols Mine, situate in the parish of Ives, comprising—
ONE 24 in. cylinder PUMPING and STAMPING ENGINE, with ONE
11 ton BOILER, whinn cage, and a 16 head stamps axle and lifters, complete.
About 135 tons of pitprop of 4, 5, 6, 7, 8, 9 ft. diameter.

7, and 8 in. pumps.
 Top door pieces. If pieces, wind-
 bores, stuffing boxes and glands,
 bucket, door piece.
 10 fms. 4 in. lifts.
 3 tons 9-faths and $\frac{5}{8}$ whim chain.
 $3\frac{1}{2}$ tons tram iron.
 4 tons staples and glands, flange and
 red bolts.
 2 iron tram wagons; 1 wood ditto.
 $1\frac{1}{2}$ tons $1\frac{1}{2}$ in. round iron rods.
 Shaft rolls, $\frac{1}{2}$ ton.
 2 shafts.
 40 1½ ft. and 2 ft. shieves.
 1 skip, 3 bobs.
 3 shaft tackles, 3 whim kibbles.
 1 nose plate of a bob and catch.
 40 9 ft. iron air pipes.
 5 cwt. steel borers.
 5 tons old east iron.
 1 old wrought iron tube, 2 bells.
 1½ ton old wrought iron.
 10 cwt. cast iron brackets.
 150 fms. ladlers.

Old and new timber, sables and weights, smiths' tools, winches, screwstocks, &c., wood rods and iron work from engine to Lawry's shaft, a superior miners' dial, knives, biddles, frames and sheds, burning house, tin leavings, and other stores throughout the mine; account house furniture, &c.

To view, apply to Capt. POOLEY, on the mine, any day previous to the sale, from Ten to Five o'clock.

For further information, apply to the Auctioneers, A. BERRYMAN, Penzance,
A. T. HARRYEY, St. Ives.

TO BE SOLD, BY AUCTION, at SOUTH FOWEY CONSOLS
MINE, near Par Station, Cornwall, on Thursday, the 2nd July, 1874, at Two
o'clock in the afternoon, the undermentioned

MINE MATERIALS, viz.:-
ONE excellent 40 ft. WATER WHEEL, 5 ft. breast, iron axle, sockets, and rings, with 4 ft. crank attached, and 28 fms. of $4\frac{1}{2}$ ft. launders; also, shaft bob, counter balance bob, logging bob, and about 29 fms. of $2\frac{1}{4}$ in. iron flat rods, complete. All nearly as good as new.
1 8 armed CAPSTAN and SHEARS, with $\frac{5}{8}$ cast-iron chain. Very good.

10 13 in. 9 ft. PUMPS.
3 11 in. 9 ft. do.
2 11 in. 11 ft. WORKINGS.
1 9 in. 11 ft. ditto.
1 8 in. 11 ft. ditto, with bucket prongs to fit.
2 DOORPIECES—1 12 in., and 1 11 in.

1 12 in. WINDBORE, 9 ft. long; flat bottom.
1 10 in. ditto, 6 ft. long; ditto.
1 8 in. ditto, 9 ft. long; ditto, for sinking.
About 28 fms. of 9 in. main rods, with rod plates and bolts to match; 2 pairs of
hammered iron main caps, 13½ ft. long, by 6 in. wide; flange pins; staples and
glands; iron staved-ladders, &c.; 1 4 ft. iron tube, 30 ft. long; 2 26 in. iron tubes,

Wood drying or changing house, containing 2 iron tables, 26 in. by 33 ft. long each, for drying the men's cloths.

Wood smiths' shop, containing 40 in. smiths' bellows, anvil, smiths' and miners' tools, and several tons of useful and scrap iron.

Shaft and whim pulleys; and a quantity of useful timber, shaft, launders, and other materials.

For further particulars, apply to Capt. F. PUCKEY, St. Blazey; or the auctioneer, Mr. WILLIAM WERRY, St. Blazey, near Par Station.

MERIONETHSHIRE, NORTH WALES.

TO BE SOLD, a PROPERTY, several miles in extent, and

It is about 1300 acres nearly, in a ring fence, and is situate about four miles from Port Madoe, and five miles from Beddigelett.

It has two torrents running through it, with several picturesque bridges and four waterfalls; one in particular is renowned for its beauty, and is the favourite resort of artists.

To the antiquarian it is worthy of note—that below the house is a tumulus, which is doubtless the burying place of some British king.

It is believed that state underlies part of the estate, and leases have been granted

Such an opportunity as this seldom offers itself to the capitalist, or to a private gentleman desirous of possessing what may be made with some outlay a magnificent family residence.

AN EXCELLENT OPPORTUNITY FOR FINANCIAL AGENTS,
SYNDICATES, OR CAPITALISTS.
NEW PEMBROKE TIN AND COPPER MINE,
In the parish of ST. BLAZEY, CORNWALL.

FOR SALE, as a going concern, that portion of the Mine called EDGECUMBE'S, now worked by flat rods attached to New Pembroke 80 in. pumping engine, and which mode will be still applicable for working Edgumbe's by payment of a small rental, to be arranged between the buyer and seller. Edgumbe's portion of the mine has been re-opened to a depth of 131 fathoms, the different levels and shafts have been cleared and securely timbered, and other

The different levels of estimates have been caused by the safety of the shaft and other expenses incurred at a cost to the present shareholders of about £5000. Only about 112 fathoms more of the shaft remain to be cleared so to reach the bottom of the mine, where the prospects of finding mineral are very encouraging. Nearly forty years ago the mine was successfully worked for copper only, and about £150,000 dividends are said to have been declared. Tin mining at that period in deep mines was very little attended to.

This contemplated sale has been determined on in consequence of the disinclination of the largest shareholder to further develop the property (good reasons for which can be given), although many of the other shareholders are anxious to continue their holdings by joining others, for the purpose of accomplishing the main

At the meeting of New Pembroke shareholders, held on the 9th instant, a committee was formed for making the necessary arrangements for disposing of the property within one month. It is considered that the present opportunity is an excellent one for financial agents or capitalists.

The following mine, situated in close proximity to Edgumbe's, and all within a distance of one mile, have sold copper and tin to the value of many millions of pounds sterling, and have paid during their respective workings the enormous profits set opposite their names—viz.,

Edgumbe's former working about	£150,000
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New Pembroke, now working, dividends declared about*	5,000
Total	£985,000

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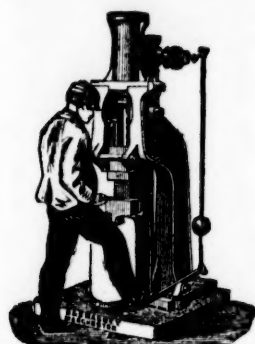
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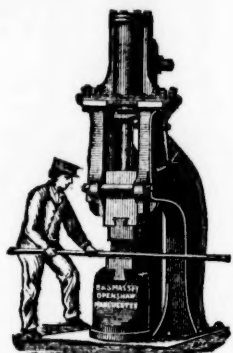
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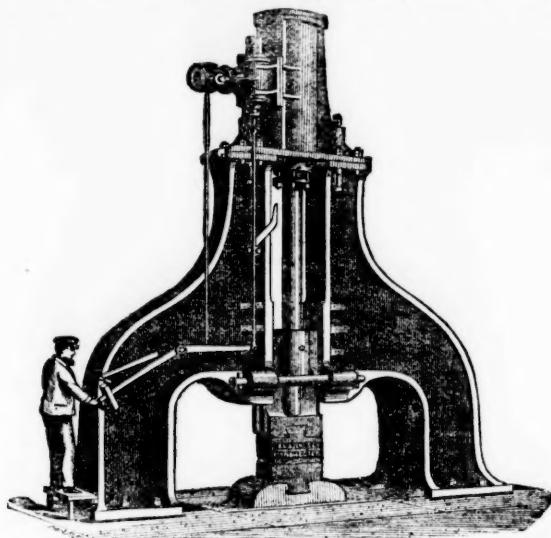
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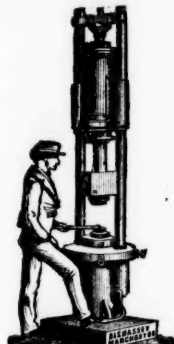
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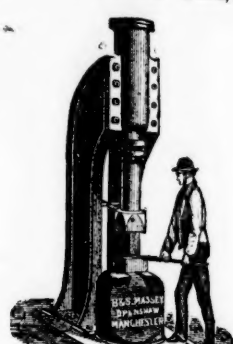
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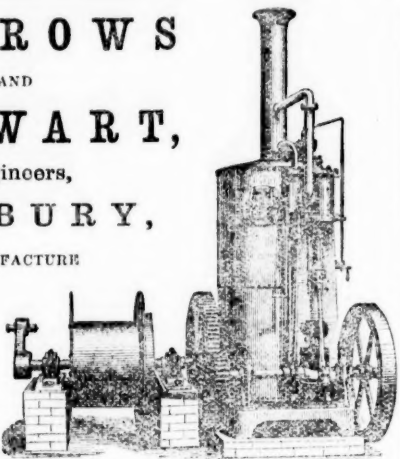
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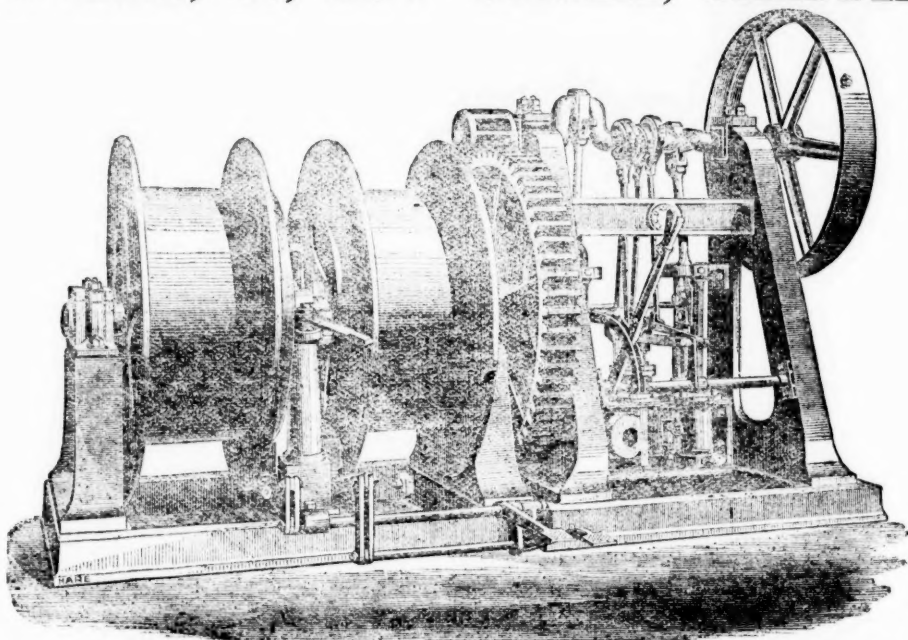
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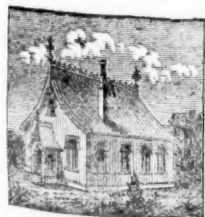
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